The JOURNAL
of the Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL
VOLUME 41 SEPTEMBER, 1942 NUMBER 9

Factors in Deficiency Disease*

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THE specific pattern of avitaminosis prevalent in a locality is apt to depend on the general economic status and the basic food habits of the population. Poverty quite regularly necessitates a diet dangerously poor in animal protein and fat and excessively rich in carbohydrate. Food habits dictate the predominant carbohydrate food. Where white flour, rice and corn furnish the bulk of the calories B group, deficiency disease is apt to be common if not endemic; where potatoes are an important constituent of the diet it is unusual. The incident of vitamin A deficiency is directly related to the use of the "leafy green and yellow" vegetables and scurvy may occur anywhere, more often from faulty selection of foodstuffs than from poverty. Anywhere and at any economic level, deficiency disease may result from indulgence in dietary fads, the prolonged use of severely restricted diets prescribed for the relief of allergic conditions or various disturbances of the gastro-intestinal and biliary tracts; and alcoholism. Of equal importance with inadequate or improper diet is failure of absorption or utilization of vitamins when the intake seems quite sufficient. Common "intrinsic" causes of avitaminosis are gastric achlorhydria, chronic diarrhea of any etiology, biliary and hepatic diseases and frequent vomiting. In the same category may be included the various conditions which create an increased demand for vitamins. Fever, pregnancy, unaccustomed work or hyperthyroidism may raise the metabolic level beyond the critical point. Therapeutic maintenance on dextrose solutions given intravenously is a commonly encountered source of severe acute avitaminosis.

In the present state of knowledge of deficiency disease it is hazardous to be dogmatic in the interpretation of the effects produced by the administration of a single pure vitamin. Something is known of the relief of certain syndromes by the administration of vitamin A, a few members of the "B group," ascorbic acid, vitamin D and vitamin K. We are still ignorant of the influence of lack of one vitamin on the physiologic functions of others and of the synergistic activity of the entire group of essential nutritive substances. It is probable that "chain reactions" requiring the biochemical functions of many vitamins are of prime importance in normal metabolic processes. This hypothesis applies particularly to the various members of the "B group" but may serve to explain certain observations which indicate that the utilization of vitamin A depends on adequate supplies of riboflavin and ascorbic acid.[9] There is yet no symptomatology attributable to lack of pyridoxine, pantothenic acid, biotin or the unisolated factors in liver. Choline, inositol and/or lipocaic have been shown to have important functions in experimental animals but one can only speculate upon their possible relation to various phenomena of human avitaminosis.

Clinical observers have sought to correlate the incidence and symptomatology of diseases cured by thiamin, riboflavin and nicotinic acid with

*Read at the annual meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 18, 1941.
(Original observations recorded in this paper were made possible by a grant in aid from the John and Mary R. Markle Foundation.)

current theories regarding the biochemical activity of these vitamins. All three, and probably pyridoxine, are components of various co-enzymes which are necessary for the derivation of energy from carbohydrate and lack of any one is thought to interrupt the processes of cellular metabolism. The symptoms and signs of avitaminosis are interpreted as results of disturbances of chemical reactions necessary to the life processes of cells due to failure of normal co-enzyme reactions. The clinical phenomena depend on the severity of vitamin depletion and the rapidity with which it is brought about. This hypothesis agrees closely with many of the known features of human deficiency disease but fails to explain many others.

Experimentally Induced Deficiencies

One of the most constant pathological findings in this group of diseases is extensive fatty infiltration of the liver which has been interpreted as a cause as well as an effect of deficiency disease. An analogous condition was observed by Sebrell and Onstott[19] in dogs dying of riboflavin deficiency. The recent demonstration by McHenry and Gavin[4,12] that fatty liver in rats can be produced by thiamin in the absence of choline and by biotin in the absence of inositol suggests that the same or analogous vitamin imbalances may be the cause of hepatic lipoidosis in human malnutrition. The same authors[13] have produced experimental evidence that pyridoxine is essential for the synthesis of fat from protein, and Mannering, Lipton and Elvehjem[14] have made observations which suggest that riboflavin is concerned with the phosphorylation or metabolism of fat. While no significant experiments have yet been carried out on human subjects it becomes necessary to consider the probability that the vitamins under consideration are concerned with the metabolism of fat as well as that of carbohydrate. The proof of such function would solve many of the present problems of nutritional disease.

Thiamin.—In experimentally induced thiamin deficiency with all factors controlled as completely as possible[8,27,28,29] it has been found that undue fatigue and dulling of interest are the earliest symptoms of deprivation. Often a typical neurasthenic syndrome developed. Anorexia, constipation, slight to moderate dyspnœa on exertion, due precordial pain and occasional palpitation occurred later. Some subjects complained of burning of the feet and cramps in the muscles of the feet and legs. Objectively, hyperesthesia of the feet and ankles, doughy firmness and tenderness of the calf muscles and slight changes in the electrocardiogram have been observed. Neither true peripheral neuritis nor marked edema have been produced. A considerable proportion of subjects developed gastric achlorhydria, hyperchromic and macrocytic anemia and hypoproteinemia.

Riboflavin.—In riboflavin deficiency produced under excellently controlled conditions, symptoms were few.[17,18] Maceration at the commissures of the lips with redness and some desquamation along the lines of opposition were the first lesions to appear. Later fissures developed at the commissures and redness spread to the oral surfaces of the lips. Mild seborrheic lesions occurred in the naso-labial folds, on the alæ nasi and occasionally on the ears and eyelids. In some patients fissures and indolent ulcers developed at the junction of the nasal septum with the lip. Later experiments with more alert subjects[10,26] have shown that photophobia with burning or itching of the eyes, anorexia and lassitude may precede the development of any gross physical signs. In such patients slit-lamp inspection of the cornea shows early superficial vascularization by the time photophobia is a complaint. Certain elderly subjects may complain only of dimness of vision and soreness of the tongue and proceed to the development of cheilosis without showing any invasion of the cornea by capillaries. Flattening of the lingual papillæ with dilation of the capillaries producing a notably clean, purplish red, granular tongue occurs in almost every instance of induced ariboflavinosis.

Nicotinic Acid.—The production of experimental nicotinic acid deficiency has seldom been attempted in previously normal individuals, the great majority of observations having been made on pellagrins apparently restored to health for a relatively short period of time.[18,20,25] In such subjects maintained on a diet poor in all vitamins but supplemented with all those available except nicotinic acid, psychic symptoms somewhat similar to those produced by thiamin deficiency are first to appear. Later, slight confu-

sion, irritability and forgetfulness for recent events are common. Anorexia, gastric discomfort and constipation follow. Still later moodiness with disinclination to talk, insomnia and marked confusion may occur. With these psychic symptoms there is often soreness of the tongue and undue[3] sensitiveness of the tongue and buccal mucosa to heat. If food is forced, diarrhea is apt to follow. Glossitis is almost always the first objective sign to appear, the tongue becomes increasingly red with atrophy and desquamation of the papillæ so that eventually it assumes the typical bright red, slick, often fissured, appearance long associated with pellagra. Under magnification the filiform papillæ have disappeared, the basement membrane appears with a hexagonal pattern indicating the location of the papillæ and the capillary loops of each papilla lie coiled in the central portions of each "hexagon." In our experience dermatitis has been the last phenomenon to be produced, in the great majority of instances it has failed to appear before the condition of the subject necessitated the termination of an experiment. Neither sunlight, ultra-violet light, infra-red, non-radiant heat, friction or chemical irritation have been more than very occasionally effective in seeming to precipitate the development of typical dermatitis. In a few patients maintained from five to seven days on glucose and water with supplements of vitamins excepting nicotinic acid, typical and severe dermatitis has appeared without any exposure to light or irritation. Nevertheless in endemic pellagra there seems no reasonable doubt that any sort of trauma including exposure to heat, light or chemical irritants may determine the incidence and location of skin lesions.

Single Vitamin Therapy.—**When the predominant symptoms and signs of an experimentally produced or spontaneous deficiency syndrome are cured by the administration of a single crystalline vitamin it does not follow that the total effect is due to the substance given. It is almost certain that severe deprivation of one vitamin interrupts all the chain reactions with which it is concerned so that apparently unrelated disturbances may be corrected. Also it is very likely that prolonged deficiency of certain of the vitamins produces functional and even structural changes in the gastro-intestinal tract which interfere with the absorption or utilization of many or most of the essential nutrients. With restoration of function following treatment with one vitamin the entire pattern of nutrition may be changed with improvement of numerous symptoms and signs. Improvement of appetite following the administration of either thiamin or nicotinic acid often increases the intake of foods which are fair sources of vitamins to such an extent that associated deficiencies are cured. With all these sources of error it is unavoidable that the interpretation of the results of treatment of any spontaneous deficiency must be open to criticism and to revision as knowledge of the synergistic and the antagonistic action of vitamins increases.**

Causes of Avitaminosis. — The mechanism which is active in the production of "B group" avitaminosis is thought to be the effort of the body to derive energy from carbohydrate in excess of the available supply of vitamins. The biochemical processes are normal so far as intrinsic cellular metabolism is concerned. Disease results from failure of the extrinsic supply of substance required to replenish the co-enzymes. Many factors contribute to imbalance between demand and supply. An excess of carbohydrate in the diet is the basis of the endemic avitaminoses under discussion; by excess is meant an amount greater than can be oxidized by the vitamins ingested. The use of an inadequate diet probably never produces a solitary or an acute avitaminosis since no naturally selected diet is completely lacking in any single vitamin however poor it may be in many. In the course of time chronic partial deficiency brings about functional and even organic changes which interfere with the absorption or utilization of the small amounts of vitamins available so that eventually a critical grade of depletion is produced. In persons whose nutritional status is chronically poor but still adequate at a given level of metabolism, any factor which increases the energy requirement may precipitate a frank deficiency state by increasing the consumption of co-enzymes. Unaccustomed work, fever, the stress of injury or of surgical operations, pregnancy or hyperthyroidism are frequent causes of such nutritional imbalance. The substitution of alcohol for food and therapeutic maintenance with parenterally administered solutions of glucose are even more potent in produc-

ing rapid depletion of vitamins. Equally important with inadequate intake of vitamins is failure of absorption or of utilization or of storage. Loss of ingested protective foods by vomiting or diarrhea is common. Gastric achlorhydria seems to interfere greatly with the extraction of vitamins from food, atrophy or edema of the intestinal mucosa prevents adequate absorption. Any clinically recognizable grade of hepatic disease seems to facilitate the development of deficiency and seriously to impair the effects of treatment. It is likely that both phosphorylation and storage are affected. Since achlorhydria, atrophy of the gastro-intestinal mucosa and fatty infiltration of the liver are constant effects of severe B group avitaminosis, it is evident that a truly vicious circle is produced. Infections which produce ulceration and edema of the colon with diarrhea and perhaps liver damage from constant absorption of the products of bacterial metabolism are particularly likely to be complicated by severe grades of polyavitaminosis. Lymphopathia venereum and all types of ulcerative colitis are the common diseases in this group.

Differential Diagnosis

Whether the diet is seriously inadequate or whether the individual is unable to extract, absorb or utilize the vitamins of an adequate diet the resulting clinical picture is a mosaic of the effect of deficiency of many vitamins. The general pattern is usually determined by a predominant lack of thiamin, of nicotinic acid or of riboflavin. Individual cases present an infinite variety of symptoms and signs, not infrequently it is exceedingly difficult to determine the paramount deficiency. It is customary and probably correct to attribute symptoms and signs of peripheral neuropathy, cardiac embarrassment, gastro-intestinal atony and perhaps certain combinations of signs of central and peripheral nervous lesions to deficiency of thiamin. Psychic disturbances, erythematous, pigmented or bullous types of dermatitis symmetrically distributed on the extremities and/or appearing on the face, neck or perineum, atrophic glossitis and evidences of severe functional and structural changes in the gastro-intestinal tract are considered characteristic of nicotinic acid deficiency. Cheilosis, a particular sort of glossitis, seborrheic dermatitis of various types and superficial vascularizing keratitis with or without superficial and interstitial corneal opacities and with various functional disturbances of vision are thought to be manifestations of riboflavin deficiency.[10,26] It is notable that few patients present all the symptoms and signs attributable to a single avitaminosis but that almost every one shows some evidence of several.

With predominant deficiency of thiamin the early symptoms of ready fatigue and anorexia are apt to be associated with nervous irritability, forgetfulness or confusion. Whether or not there are complaints of burning of the soles and leg cramps on exertion, the calf muscles are firm and doughy and pressure on the muscles causes pain, often when no pain is felt on pressure over the tibial or peroneal nerves. The soles are quite regularly hyperesthetic. There is often loss of pain sensation over various skin areas without impairment of other modalities. The tendon reflexes are exaggerated. Glossitis of either the riboflavin or nicotinic acid deficiency type is more often present than not and there may be hyperesthesia of the buccal mucosa. Very frequently there is slight pellagrous dermatitis and moderate or severe corneal vascularization. When frank peripheral neuritis with diminished tendon reflexes and gross motor and sensory dysfunction is the presenting phenomenon, glossitis and dermatitis, however mild, of the nicotinic acid deficiency type are seldom absent and very often there is corneal vascularization though no other sign of riboflavin deficiency may be present. Wet beriberi is quite common and is usually diagnosed as heart failure not improved by digitalis or the commonly used diuretics. We have seen no instance of wet beriberi in which there was neither glossitis, dermatitis or corneal vascularization. In 90 per cent of cases there is the pigmented type of symmetrical dermatitis characteristic of nicotinic acid deficiency. Some 60 per cent have glossitis characteristic of nicotinic acid or riboflavin deficiency and all have showed superficial vascularization of the cornea. Gastro-intestinal atony is a common manifestation of thiamin deficiency and is particularly troublesome in patients with wet beriberi, marked abdominal distention with constipation and a "silent abdomen" are characteristic. The radiographic findings of a huge atonic stomach and greatly dilated colon devoid of haustrations are important and helpful. Electrocardiograms are often informative. Achlorhydria, anemia and hypoproteinemia are no more common in patients with

frank beriberi than they are in those with pellagra. The specificity of these evidences of avitaminosis is questionable. 72.5 per cent of our patients with deficiency diseases of all types have had achlorhydria, 84 per cent have been anemic and less than 10 per cent have shown deficiency of plasma proteins.

The classical syndrome of nicotinic acid deficiency is pellagra. The term pellagra implies the presence of symmetrical dermatitis of particular types. Dermatitis is a late and relatively rare manifestation of nicotinic acid deficiency but may occur in the absence of other specific signs. In mild nicotinic acid deficiency psychic symptoms predominate, the lassitude, "nervousness," mental confusion, or intense irritability may precede all other symptoms. Frequently gastric discomfort and constipation accompany the initial nervous syndrome.[20] Anorexia and constipation are apt to be prominent complaints at this stage of deficiency. Atrophic glossitis with hyperesthesia of the buccal mucosa, esophagus and stomach soon follow, diarrhea is frequent but is apt to occur at considerable intervals and persist for only a day or two. Headache, vertigo and impaired hearing may be troublesome. Dermatitis is exceedingly variable in its incidence and distribution. Typically the forehead, malar eminences, neck, hands, forearms, perineum and feet are the sites of pellagrous dermatitis. Any one of all of these areas may be involved, the elbows and knees are particularly apt to show lesions. There may be balanitis, vaginitis or dermatitis of the intercrural region. Dermatitis may vary from mild erythema through all gradations of eczematous, vesicular, bulbous, pigmented and hypertrophic lesions. Cheilosis is seldom absent in typical endemic pellagra and about 80 per cent of patients examined with the slit lamp have had some grade of superficial vascularizing keratitis. Seborrheic lesions of the face, nose or ears are very common and in times past were described as typical of pellagra. Doughy, tender calves, plantar hyperesthesia, signs of peripheral neuritis or clinical and electrocardiographic signs of cardiac embarrassment are almost invariable findings. Often the psychic symptoms of nicotinic acid deficiency are present with few and minimal somatic signs. Stupor and the signs of "nicotinic acid deficiency encephalopathy"[2,7] are seldom seen in the presence of typical dermatitis though glossitis or vaginitis is present in almost every instance. "Conjunctivitis" which proves to be the pericorneal injection of riboflavin deficiency and evidences of peripheral neuropathy or of generalized interstitial edema are quite frequently present in patients with encephalopathy.

Many of the features of Wernicke's encephalopathy are identical with those described by Cleckley[2] and Jolliffe[7] and their collaborators as characteristic of stupor or encephalopathy responding rapidly and dramatically to nicotinic acid therapy. In our experience the Wernicke syndrome may respond to treatment with either thiamin or nicotinic acid, the most rapid cures have been effected with mixtures of nicotinic acid amide, thiamin and riboflavin administered intramuscularly or intravenously. It seems likely that this condition reflects an ultimate grade of B group deficiency in which the administration of any of the major components of the group produces rapid improvement because reserves of the other vitamins, unable to function in the presence of a gross inadequacy of co-enzymes, are made available.

The signs of ariboflavinosis occur more frequently than those of any other avitaminosis. Riboflavin is more scarce in ordinary foods than other members of the B complex and there is reason to think that there are more factors which condition its absorption and utilization than is the case with thiamin or nicotinic acid. Cheilosis, typical glossitis, corneal vascularization, conjunctivitis and localized seborrheic dermatitis of the face may occur without definite signs of coincident deficiency of other vitamins of the B group.[23] Failure to recognize associated avitaminoses is probably due to lack of knowledge since the almost regular incidence of signs of riboflavin deficiency in the syndromes of thiamin and nicotinic acid deficiency has been mentioned. In advanced cases fissures of the optic commissures, septal fissures and ulcers in the nose and severe keratitis with vascular invasion of all layers of the cornea have been noted.[10,24,26] Itching dermatoses of the genitalia and perineum are common. Such patients have shown symptoms or signs of thiamin and nicotinic acid deficiency, sometimes on admission, more often after a few days of hospitalization on a vitamin poor diet supplemented with riboflavin only.

Closely related to riboflavin deficiency in symptomatology but much more striking as an example of polyavitaminosis is the so-called "tropical avitaminosis." This condition has been described by many authors.[1,11,15,16,22] The outstanding signs are soreness and desquamation of the lips followed by the development of fissures in the commissures of the lips, conjunctivitis with fissures at the canthi, extreme photophobia, dimness of vision, and limitation of the visual fields, glossitis, often so painful as to interfere with eating and an "eczematous" dermatitis of the genitalia. Ophthalmoscopic examination shows evidence of retrobulbar neuritis and permanent impairment of vision is a frequent sequel. We have seen only three examples of this syndrome. In addition to the signs mentioned by the authors cited we found marked calf tenderness and hyperesthesia of the soles and severe corneal vascularization. One patient who refused all food except milk was treated with nicotinic acid only and made a complete recovery in eight days. It was estimated that his daily intake of one gallon of milk furnished about 2.5 milligrams of thiamin and five milligrams of riboflavin in addition to the 1,000 milligrams of nicotinic acid given daily. Vision which was 15/200 on admission with almost total loss of color discrimination was 20/30 on discharge and color discrimination was normal. A second patient with almost identical lesions and visual impairment refused all nourishment except bottled carbonated drinks. He was treated with 1,000 mg. of nicotinic acid, 20 mg. of thiamin and 10 mg. of riboflavin daily and made a complete recovery in ten days. The third patient had photophobia, conjunctival injection, severe cheilosis and glossitis, balanitis and edema and redness of the scrotum. There was severe corneal vascularization and mydriasis. Visual acuity was not impaired nor was color vision. Ophthalmoscopic examination showed no evidence of retrobulbar neuritis. Treatment consisted of 500 mg. of nicotinic acid, 30 mg. of thiamin and 15 mg. of riboflavin daily for six days; at the end of this time cure was complete. The cheilosis and corneal vascularization in this syndrome seem typical of ariboflavinosis, the glossitis and genital dermatitis were characteristic of nicotinic acid deficiency. The evidences of retrobulbar neuritis present in two patients cannot at present be related to any of the vitamins used in treatment; since there was evidence of peripheral neuropathy and optic neuritis healed promptly, it seems likely that thiamin deficiency was the cause of both types of nerve lesions though the cranial nerves are generally considered exempt from the effects of thiamin deficiency.

There are a number of atypical scaly dermatoses closely resembling seborrheic dermatitis which seem to be manifestations of B group avitaminosis. P. György has discussed them fully[6] from the standpoint of their analogy to the dermatoses produced in animals by pyridoxine and biotin deficiency and Gross[5] has described and illustrated them in some detail as manifestations of B group vitamin deficiencies curable with liver extract. In our experience with a few such dermatoses the signs of riboflavin deficiency (cheilosis, keratitis) and of nicotinic acid deficiency (glossitis) were always present. Our patients were treated with liberal amounts of riboflavin and, without exception, recovered. It is likely that recovery would have been more prompt had nicotinic acid been added. At the time it was thought that dietary sources of nicotinic acid and thiamin were adequate.

Treatment

The treatment of the various manifestations of avitaminosis remains empirical in that indications for and results of vitamin therapy must still be evaluated clinically rather than by accurate chemical methods. The amounts of vitamins required for effective treatment are apt to be greatly in excess of theoretic requirements, possibly because of organic changes in the gastro-intestinal tract which are the result of prolonged vitamin deficiency. Gastric achlorhydria is certainly an important cause of poor extraction of vitamins from food and unrecognized or unrecognizable hepatic disease must frequently prevent their normal phosphorylation and storage. Such intrinsic defects affect the absorption and utilization of all the vitamins and often explain the development of deficiency disease in persons taking an adequate diet. The administration of a single vitamin of the B group in large amounts may produce rapid, even spectacular cure of certain signs and symptoms but if continued, such therapy is almost certain to result in the appearance of characteristic symptoms and signs of other avitaminoses. The probable cause of this phenomenon is the exhaustion of reserves of

stored vitamins used up in enzymatic chain reactions made possible by an ample supply of one component of the series.

It is entirely true that the basis of treatment of all avitaminoses is a good diet and for patients who can swallow and retain a high caloric, high protein, high vitamin diet, this is the ideal method of treatment. In the majority of instances of endemic avitaminosis it is impossible for the patients to procure such a diet and in very many cases of severe deficiency disease of non-dietary origin such a diet cannot be eaten, retained or utilized. Whenever possible curative diets such as those described by Spies, Chinn and McLester[21] should be used. It is often possible to administer the liquid curative diet by tube to patients unable to drink. For rapid cure, such a diet should be supplemented with ample amounts of synthetic vitamins and also with yeast or crude extract of liver. Every case of severe avitaminosis is a medical emergency which must be treated quite as actively as diabetic coma or mercurial poisoning. Since the water-soluble vitamins are rapidly excreted in the urine it is necessary to give large daily doses in relatively small aliquots administered at frequent intervals. In the absence of vomiting, severe diarrhea or edema of the gastrointestinal mucosa it is likely that oral administration of vitamins is as effective as injection but when retention or absorption is doubtful intravenous or intramuscular injection is the route of choice. Always patients respond more rapidly when crude extract of liver is used in conjunction with synthetic vitamins. The optimal dose of injectable liver extract is not less than 3 cc. daily, 5 cc. is more certainly an effective dose.

In beriberi, thiamin should be given in doses of 10 mg. from three to ten times daily, the total dose depending on the severity of the clinical manifestations. In the less severe forms of thiamin deficiency 3 to 10 mg. daily may be adequate. In addition to thiamin, at least 3 mg. of riboflavin and 50 mg. of nicotinic acid should be administered until all evidences of avitaminosis are absent. In ariboflavinosis it is extremely difficult to predict the effective dose of riboflavin, 6 to 15 mg. of the vitamin should be given, some patients may require 30 mg. daily. At least 3 mg. of thiamin and 50 mg. of nicotinic acid should be added. In pellagra and the apparently specific cerebral manifestations of nicotinic acid deficiency, 600 to 1800 mg. of nicotinic acid should be given each day until cure is effected. The complement of thiamin should not be less than 6 mg. and of riboflavin at least 3 mg. In our clinic it is customary to treat severe pellagra with mixtures containing 1 mg. of riboflavin, 10 mg. of thiamin and 100 mg. of sodium nicotinate or nicotinamide in each aliquot. Such a mixture is empirical and probably wasteful but quite effective. The role of pyridoxin in human avitaminosis is still unknown. It is possible that this vitamin has to do with the utilization or mobilization of other members of the B group. No definite dosage can be prescribed but our experience suggests that amounts of the order of 5 mg. daily are helpful in securing the full effects of other vitamins of the B group while large amounts such as 50 to 100 mg. daily may be harmful because they cause unduly rapid excretion.

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"B" Vitamins in Dermatology

With a Special Study of Vitamin B6 (Pyridoxine)*†

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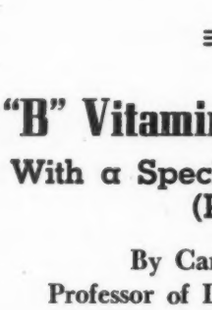

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■ THERE is increasing evidence of the importance of the "B" vitamins in dermatology. Reports emanating from research laboratories indicate a strong tendency to the appearance of dermatological lesions in experimental animals fed diets deficient in "B" vitamins, but there is still considerable doubt as to whether we can correlate these changes in the lower animals with skin diseases of human beings. However, the dermatologist is increasingly recognizing the fact that numerous dermatoses that were once believed to be of toxic origin or of metabolic origin, are either deficiency diseases or at least greatly influenced by dietary deficiencies or vitamin deficiencies. As Andrews[1] pointed out at the Section on Dermatology of the Medical Society of the State of Pennsylvania in 1939, "Although the knowledge of vitamin deficiency diseases is still very vague, there are indications of a group of skin conditions directly caused by deficiency, and another group of diseases in which a nutritional deficiency predisposes to the onset and influences the course of some infectious disease although not causing it directly."

Vitamin B is known to have the following components: vitamin B_1 (or thiamin chloride), B_2 or riboflavin, pantothenic acid (filtrate factor), nicotinic acid and derivatives (P-P factor) and B_6 (Pyridoxine). The "B" complex, as usually marketed, has all of these components and may contain in addition, brewers' yeast.

Vitamin B_1 (Thiamin Chloride)

Thiamin chloride, according to Spies[28] is probably important to all cellular life and is certainly important for the normal function of the nervous system. Improvement in acrodynia has been reported by Durand, Spickard and Burgess[5] and more recently by Forsyth.[7] Of greater interest to the dermatologist are the reports by Rattner and Roll,[21] Goodman[9] and Gordon[10] on the use of vitamin B_1 in the treatment of herpes zoster. Of sixteen patients treated by Rattner and Roll, eleven were unimproved. The results reported by Goodman and Gordon were more gratifying. Further investigations are necessary before the value of thiamin chloride therapy for herpes zoster can be fully evaluated, but there is reason to believe that fairly large doses are required to give relief from symptoms—perhaps as much as 100 mg. daily. Madden[18] has recently reported favorable results in a small number of cases of psoriasis following therapy with vitamin B_1 and I have on record a patient with an intractable psoriasis of the palms who cleared up completely after taking 10 mg. of thiamin chloride daily for several weeks, relapsed on discontinuing the drug and cleared up when the drug was started

*Read before the Section on Dermatology, Michigan State Medical Society, Grand Rapids, Michigan, September 19, 1941.
†All vitamins included in this study were furnished through the courtesy of Merck & Company.

again. Other cases have shown little or no response.

Extensive skin changes as a result of thiamin deficiency have not been reported.

Riboflavin (Vitamin B_2)

Riboflavin-deficient rats have been observed to develop an eczematous condition affecting chiefly the nostrils and eyes, and branny flaking and scaling of the skin occurs. Synthesized artificially for the first time in 1937, the literature on riboflavin and its deficiencies, is already extensive. Sebrell and Butler[24,26] found that a riboflavin deficiency in human beings produced lesions of the lips and angles of the mouth, and seborrheic changes on the nose and ears. Studies by Spies, Bean, Vilter and Huff[30] on "endemic riboflavin deficiency in infants and children" indicate that riboflavin deficiency is a non-contagious, non-hereditary disease occurring in either sex of any race, developing over months and years and the appearance of diagnostic lesions is preceded by a period of ill health which may be termed "the deficiency development time." They further observed that the oral administration of 1 mg. of riboflavin t.i.d. or one ounce of brewers' yeast or liver extract daily, was followed by an increase in vigor and in sense of well-being. Ocular manifestations disappeared and lesions around the mouth healed. Other papers well worth reading by the dermatologist on riboflavin deficiency in human beings are those by Spies, Vilter and Ashe[34] and Jolliffe, Fein and Rosenblum.[16] According to Snell and Strong[25] the determination of blood and muscle riboflavin is of little significance in the evaluation of riboflavin deficiency in man.

The problem of many cases that were formerly called per-leche has thus been solved. Riboflavin given orally in a dose of 1 mg. t.i.d., reinforced by either brewers' yeast or liver extract and a full diet should be tried in eczematous eruption involving the mouth, nose, eyelids and ears, and also to increase the efficacy of nicotinic acid in certain pellagrins (Spies[28]).

Pantothenic Acid (Filtrate Factor)

An impure form of pantothenic acid was first isolated in 1938 from natural sources, and synthesis was only accomplished as recently as 1940. Little is known concerning the human requirement for this substance. According to Sebrell[25] the filtrate factor (pantothenic acid) is not concerned in pellagra, although Spies, Stanbery, Williams, Jukes and Babcock[33] found the blood pantothenic acid of patients with pellagra, beriberi and riboflavin deficiency decreased from 23 to 50 per cent from the normal. György and Poling[14] observed that concentrates of pantothenic acid, with a purification up to 40 to 50 per cent, appear to contain one factor, but not the only factor concerned in the cure of nutritional achromotrichia in rats. Williams,[36] however, claimed that neither pantothenic acid concentrates nor pure pantothenic acid exhibited a preventive or curative effect on the gray hair of rats. Dimick and Lepp[4] found that for the rat on a factor 2, deficient diet pantothenic acid promotes growth, cures the eye symptoms, improves the skin condition and decreases graying of the fur although not completely. Morgan and Simms[19] found that young silver foxes on diet lacking the "filtrate factor" lost their fur, while those receiving the "filtrate factor" retained their fur and had normal dark silver pelts. My own studies of the effects of pantothenic acid administered for one year to two volunteer patients with beginning graying of the hair and for six months in two patients with alopecia areata in which the hair returned white, showed no action at all in restoring normal color. Pantothenic acid is known to relieve the syndrome of chick dermatitis.

Nicotinic Acid and Derivatives (P-P Factor)

Included are nicotinic acid (pyridine-3-carboxylic acid) and nicotinamide (nicotinic acid amide). This vitamin was first prepared by Huber[15] in 1867. Cure of four dogs suffering from black tongue following single doses of 30 milligrams of nicotinic acid was reported by Elvehjem, Madden, Strong and Woolley[6] in 1937. The use of nicotinic acid for the treatment of human pellagra was advocated in the same year by Fouts, Helmer, Lepkosky and Jukes,[8] and also by Spies, Cooper and Blankenhorn,[31] and since then by many others too numerous to include here. Administration of nicotinic acid in a dosage of 500 to 1,000 mg. daily by mouth cures mucous membrane lesions and relieves wholly or in part the gastro-intestinal and mental symptoms of pellagra. Skin manifestions do not always respond.

Flushing and erythema of the skin has been observed to follow administration of nicotinic acid due to increased peripheral circulation and capillary dilatation. Although it has been advocated that this vitamin be used for this purpose in the treatment of various dermatological conditions, warning should be given to avoid giving nicotinic acid either alone or in vitamin B complex to patients with "rosacea tendency." Nicotinamide does not produce this reaction.

Vitamin B_6 (Pyridoxine)

Pyridoxine was isolated in 1938 and synthesized in 1939, although in 1934, György[12] named the "rat pellagra preventive factor" vitamin B_6, and there are numerous references in the literature to this vitamin in the ensuing years. György, Sullivan and Karsner[13] in 1937 described scaly dermatoses in rats produced by vitamin B_6 deficiency and suggested the name "rat acrodynia."

Antopol and Unna[2] found that rats maintained on a diet deficient in vitamin B_6, but supplied adequately with thiamin, riboflavin, and nicotinic acid, developed severe symptoms of vitamin B_6 deficiency. Histologic examination showed epithelial cells of the ears to be enlarged, the stratum granulosum was wider, hyperkeratosis extreme and the stratum lucidum thicker and fading imperceptibly into the stratum corneum. There was intercellular edema and acanthosis. Hair follicles and sebaceous glands were inconspicuous. In twenty-four to forty-eight hours following a single dose of synthetic vitamin B_6 (100 Y) the edematous state was barely discernible, in three days all ulcerations about the ears, paws and snout, *except the extensive ones,* were healed. The hair matrix showed activity with hair regeneration and the atrophic appearance of the sebaceous glands was lost.

The therapeutic uses of pyridoxine are poorly understood, which is not exceptional in view of the short time that has elapsed since its synthesis. In 1939, Spies, Bean and Ashe[29] reported on four pellagrins who had failed to recover entirely on a selected diet with supplements of thiamin, riboflavin and nicotinic acid, but responded favorably to a single 50 mg. dose of B_6. Smith and Martin[27] found healing occurred promptly in three of four cases of cheilosis following intravenous administration of vitamin B_6. The fourth case improved slightly, but cure was completed by the addition of riboflavin, nicotinic acid and liver extract.

My interest in vitamin B_6 was aroused by the observations of Spies, Bean and Ashe[29] on its use in pellagra. At that time a patient in the Temple University Hospital with pellagra-like symptoms including a dermatitis of the hands, forearms and lower legs and mental instability following a prolonged diet consisting chiefly of fish, meat and alcohol, showed little or no response to a vitamin-rich diet and nicotinic acid. Injections of vitamin B_6 were started with immediate improvement and eventual complete recovery. It was decided to try the effects of vitamin B_6 therapy in other patients showing various types of eczematous manifestations and to date, fifty-four patients have received this preparation. It is not proposed to make a final analysis of this study at the present time, as results are not wholly conclusive, but a brief review of some of the cases treated and results achieved is offered as a stimulus to study by others.*

Case Reports

The following cases improved or were cured either without other treatment, or without change in their previous treatment.

Case 1.—B. B., aged thirty-seven, merchant, developed a widespread eruption clinically resembling the Sulzberger-Garber syndrome. The eruption would partially disappear when he was away from home and flare up severely upon his return. Cutaneous tests revealed a strong sensitivity to his own house dust. Local therapy was given without improvement, and finally subcutaneous injections of vitamin B_6, 50 mg. weekly, were started. Within a few months he was virtually free of his eruption, was able to return to his home without flaring up, and gave a negative reaction to his own house dust. The possibility of a spontaneous change in his allergic state must be kept in mind.

Case 2.—Mrs. F. F., aged twenty-eight, housewife, had suffered since childhood with a persistent dry, scaly, pruritic eczema of the seborrheic variety involving the scalp, face, ears, neck and arms. Treatment by several dermatologists, every conceivable type of local therapy, including x-ray, had failed to produce more than a temporary improvement. Subcutaneous injections of vitamin B_6, 50 mg. weekly, were started and the patient given a simple boric acid solution for local use. Within three days after the initial injection there was marked clinical improvement and relief from itching, and within three weeks the condition was clear. Treatment was

*Full analysis of the results of the studies of vitamin B_6 now being carried out by Dr. M. H. Samitz and Herman Brown, Chemist of the Research Institute of Cutaneous Medicine, and myself, will be published.

continued at two-week intervals for one year with no return of skin lesions, after which the patient did not return for several weeks with the result that she had a slight outbreak. Two weeks after therapy was started again, she was again free of the eruption.

Case 3.—Mr. W. A., aged fifty-five, had had for many years a pruritic thickened patch of eczema involving the left cheek and ears and which he attributed to a frostbite. Clinically the patch suggested either a mild neurodermite or a patch of seborrhea. X-ray therapy and a simple paste gave temporary relief, but finally proved ineffective.

Without any hope of its being effective, an injection of 50 mg. of vitamin B_6 was given subcutaneously and within one week the patch and its accompanying symptoms had disappeared. With the least warning of itching or return of the patch the patient has insisted upon a further injection always with prompt disappearance of all manifestations.

Case 4.—Mrs. S., aged fifty, had for many years a mild squamous eczema of the face and flexures of the elbows. Treatment elsewhere with x-ray therapy and local medication had proven wholly ineffective. After three injections of 50 mg. each of vitamin B_6, all manifestations disappeared and have not returned after four months.

Because of a report by Schwartzer[22] of the ineffectiveness of vitamin B_6 in the eczema of nurslings, it was for a long time not used in infantile eczema. The following case illustrates the occasional value of vitamin B_6.

Case 5.—F. D., a three-year-old girl, had since infancy a persistent, dry, squamous eczema fairly widespread over the body. Because of the complete failure of dietary and local measures to bring about any degree of improvement, vitamin B_6 was given impirically with a complete disappearance of the eruption. Discontinuance of the vitamin therapy was followed by return of the eruption which again disappeared within three days after a single injection of 50 mg. of B_6.

These are a few selected cases illustrating the different types of eczema or eczematous eruptions in which vitamin B_6 therapy apparently changed the course of the disease.

Frankly, all the cases of eczema treated did not respond as miraculously and in an endeavor to determine in advance which patients actually were deficient in vitamin B_6, we* resorted to the excretion test using the colorimetric method devised by Scudi, Koones and Keresztesy[23] and first reported in January, 1940. Spies, Ludisch and Bean[32] using this method found that one hour after injection, five normal individuals excreted in the urine an average of 7.9 per cent of 50 mg. of pyridoxine injected intravenously. Nine ambulatory patients with evidence of either pellagra, beriberi or riboflavin deficiency excreted an average of 0.2 per cent and three hospitalized patients with clinical deficiency disease excreted almost none. These three patients were on a diet deficient in vitamin B_6, and it may be mentioned here that the accredited sources of pyridoxine are rice, bran, liver, yeast, legumes, egg yolk, cereals and seeds. Although we plan to eventually include a tabulation of findings of the excretion tests in relation to the treated cases and results achieved, it may be of interest to note that in Case 5 above, early studies showed an excretion of only 1.8 mg. (3.6 per cent) of 50 milligrams injected at the height of the eruption while during the stage of quiescence 10.1 per cent was excreted. In this way it is shown that the patient was in need of, and absorbing vitamin B_6 when the eczema was active and eliminating a fairly high percentage (10.1 per cent) during the quiescent stage. Vilter, Schiro and Spies[35] have shown that large doses of vitamin B_6 given intravenously cause an increase in reticulocytes and white blood cells, particularly polymorphonuclears. It is possible that these changes have a definite curative influence in certain cases of eczema. Our studies to date indicate that favorable action may be looked for in pellagra or pellagra-like eruptions, seborrheic eczema, and occasionally in neurodermatitis and atopic eczema. Our studies also indicate a particularly favorable action in seborrheic dermatitis.

Vitamin B Complex

Gross[11] has recently reported a series of cases of extensive and localized eruptions which responded to treatment with liver extract and suggests the conditions represent a vitamin B complex deficiency which may be due to low intake or based on a constitutional predisposition which may be identified with the so-called seborrheic diathesis. Seborrheic eczema, extensive monilial infections of the skin, vulval and anal eczema and kraurosis vulvæ, and certain types of arsphenamine dermatitis responded to liver therapy. Our own studies show an increase in urinary excretion of pyridoxine in normal subjects following administration of liver extract. Kristensen and Vendel[17] have reported striking results in typical

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cases of eczema following saturation of the patient's system with vitamin B complex, while against other skin diseases this therapy had no such specific effect. Burgess[3] found the response of fifteen cases of lichen planus to vitamin B complex so good at times to appear almost specific. Vitamin B complex has recently enjoyed considerable popularity as a remedy for stopping premature fall of hair although it has shown no propensities for growing hair on bald heads. It also appears to be of value in stimulating regrowth of hair in alopecia areata.

Summary

A few years ago when asked to discuss "Vitamins in Relation to Dermatology" at the Philadelphia County Medical Society, insufficient literature on the subject was found to make a worth-while publication. The last decade has seen the picture change entirely and today it appears that the "B" vitamins may play an important role in dermatologic therapy. Parran[20] in a discussion of vitamins has recently written, "In the whole problem, and it is an enormous one, deficiencies in vitamin B complex are the most serious." Thiamin chloride (vitamin B) is of value in the treatment of herpes zoster, acrodynia and may prove helpful in psoriasis. Riboflavin deficiency in human beings produces lesions of the lips and angles of the mouth and seborrheic changes. Riboflavin therapy is curative when these changes are seen. The uses of pantothenic acid in human beings remain a mystery, although in lower animals there is a definite effect in counteracting gray hair. Nicotinic acid cures canine black tongue and human pellagra. Pyridoxine is too new to evaluate but in preliminary studies we have found it either helpful or curative in eczematous conditions of the skin, particularly of the seborrheic type. Vitamin B complex which contains all of these factors has been observed to exert a favorable influence on seborrheic eczema, monilia infections, vulval and anal eczema, kraurosis vulvæ and certain types of arsphenamine dermatitis (Gross). It has also been advocated for lichen planus and premature alopecia.

An entire new field of therapy has been opened to the dermatologist and only time and further experimentation and trial will reveal the full value of the "B" vitamin in the treatment of conditions enumerated and perhaps many more.

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The Clinical Use of Diuretics*

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DIURETICS are used to increase the flow of urine in order to remove excessive accumulations of fluid called edema. The effective clinical use of diuretics must be based on an understanding of the alterations in the body which produce edema, so that appropriate measures may be taken to correct these changes. If it is impossible to correct these factors they can often be altered to prevent the accumulation of fluid even though the cause of the edema may persist.

Factors Favoring the Production of Edema

The water of the body carrying with it concentrations of salts and protein is divided into three separate compartments, the blood, the interstitial fluid, and the intracellular fluid.[14,16]

The water of the blood, the serum, contains a relatively high concentration of protein while sodium chloride is its chief salt. That of the interstitial fluid, or the fluid layer between the blood and the cells, contains relatively little protein and is considered to be an ultrafiltrate[18] of the fluid in the blood stream so again sodium chloride is its most important salt. In contrast to these two fluid compartments, the water within the cells is free of sodium chloride but potassium phosphate is present as its predominant salt. Edema consists of increase in the volume of the interstitial fluid layer and consequently there is an increase in the amount of sodium chloride in the body.

In the nutrition of the tissues there is a constant exchange of water and salt between the blood in the capillaries, the fluid of the tissue spaces, and the cells. This exchange of water from the blood occurs across the semipermeable capillary membrane which permits the passage of water and salts but retains the protein within the blood vessels. It is effected by the so-called filtration pressure at the arterial end of the capillary which forces fluid from the vessel.[30] The water and salts of the interstitial fluid are returned to the blood as a result of the colloid osmotic pressure which is exerted by the proteins in the capillaries.[31] The filtration pressure and the colloid osmotic pressure, which are the chief factors in water exchange, are modified by the pressure in the tissue spaces resisting the filtration pressure, i.e., "tissue pressure,"[22] and by the small amount of protein that may be present in the interstitial fluid. This protein exerts some colloid osmotic pressure which tends to hold fluid in the tissue spaces. Thus if a perfect balance of fluid exchange were to exist across a capillary wall, the capillary filtration pressure and the colloid osmotic pressure of the tissue fluid would be equal to the colloid osmotic pressure of the blood plasma plus the tissue pressure. Since a perfect balance rarely exists, the tissue spaces are relieved of excessive accumulations of fluid through the lymph channels.

Edema, therefore, may occur when there is a sufficient alteration of any of the following factors: (1) an increase in filtration pressure; (2) a decrease in the colloid osmotic pressure of the serum, through a decrease of the concentration of serum proteins; (3) damage to the capillary wall so that it is no longer a semi-permeable membrane, and protein may pass into the interstitial fluid; (4) obstruction to lymph flow; and (5) decrease in tissue pressure.

An increase of filtration pressure may occur at the arterial end of the capillary with arteriolar dilatation as a result of inflammation, local heating, nerve injuries affecting vasomotor control, or from dilatation of arterioles in order to dissipate excessive body heat. The filtration pressure may also be increased at the venous end of the capillary through an increase in the venous pressure resulting from local obstructions to

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venous return or from a general elevation of venous pressure commonly found in heart failure.

A decrease in the colloid osmotic pressure is due to a decrease in the concentration of protein in the serum. This may be the result of an inadequate protein intake as observed in nutritional edema, an inability to manufacture enough serum protein as seen in liver disease, or from a loss of serum protein through the kidney in nephritis.

Damage to the capillary wall sufficient to produce edema occurs locally following trauma, inflammations of the tissues, or in allergic conditions. Generalized capillary damage occurs in the acute stages of glomerulonephritis. Under these circumstances the capillary membranes are more permeable to the serum proteins which permit their escape into the interstitial fluid. With this loss of serum protein there is a decrease in the colloid osmotic pressure in the capillaries.

Obstruction of lymph flow results from inflammation or mechanical obstruction of the lymph channels. With obstruction the entire burden of the removal of fluid from the tissue spaces rests on the serum colloid osmotic pressure and the tissue pressure which are often insufficient to overcome the effects of filtration pressure and hence edema develops.

An uncommonly recognized but important cause for edema is a decrease in tissue tone. This is most frequently seen in individuals who have recently lost weight, in elderly people with atrophy of the skin and subcutaneous tissue, and in those who have formerly had edema.

General Measures in the Management of Edema

In the management of edema the ultimate purpose is to secure a normal volume and distribution of the interstitial fluid. This may be done through a correction of the factors favoring the production of edema or if this is impossible, by so altering the other factors in fluid exchange that they can compensate for those that are disturbed.

There are certain general measures that should be instituted in all cases. Bed rest is quite important since it decreases the hydrostatic pressure in the veins and thus decreases the filtration pressure, particularly in the dependent portions of the body. A diet as low as possible in sodium, and one which contains an adequate amount of protein and preferably a neutral or acid ash, is especially helpful. Since edema fluid is composed of water and sodium chloride the limitation of sodium chloride intake will assist in preventing the further development of edema. Such a diet can be approximated at the bed side by advising the patient to avoid salt in the preparation of food, table salt, salted butter, and all other foods that may contain salt. The diet may be altered so that it has an acid ash by using large quantities of meat and eggs, and by limiting vegetables, fruits and milk. Care should be taken, however, to assure an adequate vitamin intake. With a diet sufficiently low in sodium there is no necessity for the limitation of water. Often the patient's desire for salt may in part be alleviated by the use of potassium chloride instead of sodium chloride.

Specific Measures in the Management of Edema with Diuretic Drugs

Though in general drugs do not act directly on the factors favoring edema production, they may alter these so that edema will disappear. Diuretics may be classified according to their action into three groups: (1) those that increase the serum colloid osmotic pressure, (2) those that increase the circulation, particularly through the kidneys and thus increase the volume of glomerular filtrate, and (3) those that decrease the reabsorption of the glomerular filtrate.

Of the drugs used to increase colloid osmotic pressure, human blood serum or whole blood is the most physiological though often difficult to procure. Aldrich and Boyle[1] have reported surprising results in the treatment of lipoid nephrosis in children with the use of 24 to 65 c.c. of four times concentrated human serum. They were unsuccessful, however, in the management of other types of renal edema, notably those with hematuria.

Acacia, administered in a 6 per cent solution, has been used for the treatment of edema associated with low serum proteins but because of the complications resulting from its use, it has generally fallen into disrepute. Goudsmit and Binger,[17] however, have recently reported its effective use in all but four of forty successive adult cases with the nephrotic syndrome. They exercised extraordinary care in the preparation of the acacia and administered it in daily doses of 30 gms. for three to five days.

Hypertonic glucose or sucrose increases temporarily the colloid osmotic pressure. Glucose, however, soon passes through the capillary membrane and its effect is lost. Sucrose, on the other hand, remains in the blood stream until it is excreted by the kidney. The fact that it frequently produces kidney damage makes its use less desirable.

The drugs that act as diuretics through their ability to improve the circulation through the kidney are rather limited. Digitalis is the most important but its use as a diuretic is limited to those special cases of edema resulting from failure of the myocardium. Diuresis in heart failure resulting from digitalis administration cannot be expected to occur until the patient has received full therapeutic doses; small doses are without effect. In the absence of heart failure, digitalis is ineffective as a diuretic.[21]

The xanthine derivatives—caffeine, theobromine and theophylline—exert a diuretic effect, presumably through their ability to increase renal blood flow, thus increasing the volume of the glomerular filtrate.[19] Unfortunately, their usefulness is limited by the fact that when given in doses sufficiently large to produce an adequate diuresis, severe gastro-intestinal irritation may be experienced. The theophyllin compounds are the most effective of this group but they also produce the most disturbing gastro-intestinal irritability. It is usually necessary to give them in doses of 0.2 gm. three or four times daily to produce a diuresis. They are especially useful in arteriosclerotic heart diseases since there is evidence suggesting that in addition to a mild diuresis, they may also dilate the coronary arteries. Theobromine derivatives must be given in doses of 1.0 gm. three or four times daily before a significant diuretic response may be expected.

In general, the most effective diuretics are those that act by decreasing the reabsorption of the glomerular filtrate. Since in the normal individual the glomerular filtrate in 24 hours is about 170 liters, of which about 168.5 liters are reabsorbed by the tubules, it can be easily seen that any drug significantly decreasing the process of reabsorption will produce a copious flow of urine. Such drugs as the acid-producing salts, the potassium salts, urea, or the organic mercurial compounds, act as diuretics in this manner.

Of the acid salts, ammonium chloride is probably superior to others of the group, e.g., ammonium nitrate, ammonium phosphate, calcium chloride, etc. As ammonium chloride is absorbed from the gastro-intestinal tract the ammonium is converted into urea, leaving the chloride ion available to combine with base and thus produce an acidosis.[15] In an effort to protect the body from the acidosis produced by the addition of chloride, the kidney excretes the chloride as a salt, usually sodium chloride, and with this there is also a loss of water from the body. With the development of the acidosis induced by the excess chloride, the kidney attempts to preserve the base of the body by manufacturing ammonium from urea so that the chloride added is now excreted as ammonium chloride and the diuretic effect is lost. In general, then, the maximum diuretic effect of acid salts can be expected to occur during the first two or three days of their administration. In order to avoid the antidiuretic effect of the production of ammonium by the kidneys, the acid salts are most effectively administered in large doses of 9 to 12 grams daily for three days, then stopped for three or four days so that the ammonia production will decrease, at which time they can again be administered. Because all of these salts produce gastro-intestinal irritation, they are best given after meals in divided doses using 0.5 gm. enteric coated tablets.

Potassium salts have been advocated as diuretics chiefly because the gastro-intestinal effects are not as severe.[4,20] On the whole, however, they do not seem to be as effective as ammonium chloride and when given in doses of 9 to 12 grams, produce significant gastro-intestinal irritation.

Large doses of urea, 30 to 100 grams daily, have been employed as a diuretic[9] but because of the severe gastric upsets its use has generally been abandoned in favor of more effective and less irritating drugs.

Probably the most effective and least irritating diuretics available at the present time are the organic mercurials. Paracelsus first introduced mercury in the treatment of dropsy in the Sixteenth Century and its use has continued in spite of the severe toxic reactions commonly experienced. In 1920[28] an organic mercurial compound, novasural (merbaphen),

used in antiluetic therapy, was found to exert a marked diuretic effect though mercurialism was a fairly common complication of its use. Modifications of this organic mercurial compound, however, have fewer toxic effects and with the introduction of salyrgan in 1924[6] and mercupurine in 1928[33] comparatively safe and effective diuretics have been available.

During the early years of the extensive use of salyrgan and mercupurine, there was considerable debate concerning their potential nephrotoxic action. Time and extensive experience with these products have demonstrated that they may be given over periods of several years without evidence of impairment of renal function or at autopsy of kidney damage.[11,24,25,34]

Though both salyrgan and mercupurine are effective diuretics, a somewhat greater diuresis is generally observed with mercupurine than with salyrgan, possibly due to the fact that mercupurine contains theophyllin as well as the organic mercurial salt. In addition, the necrosis of subcutaneous tissue when the salt is accidentally injected outside of the vein is less severe with mercupurine. Recently the manufacturers of salyrgan have added theophyllin to the salygran compound so that it is quite similar to mercupurine.

Though these preparations may be given intramuscularly or as suppositories, they are most effective when given intravenously in 1 or 2 c.c. doses diluted with 5 to 10 c.c. of normal saline. Special care must always be taken to avoid injecting the drug into the subcutaneous tissue because severe necrosis often results. Since these drugs exert a powerful diuretic effect, it is well to use a 1 c.c. dose initially in order that the diuresis will not be too severe, since 2 c.c. produces about three times as great a diuresis.[7] Diuresis will begin within thirty to sixty minutes after the intravenous administration of the drug and will continue for twelve to eighteen hours, consequently it is best to give the drug in the morning so that the patient will not have his sleep disturbed. There have been occasional isolated reports[3,8,27,32,35] of severe reactions, usually to salyrgan, in patients with kidney disease, but they must be very rare.

Both preparations are available in the form of suppositories although the salyrgan suppository may cause rectal irritation. The mercurin suppository contains about 0.5 gm. mercury or about five times the amount in one c.c. of the intravenous preparation and produces a diuresis that is about 80 per cent as effective.[12]

Batterman and DeGraff[5] have recently reported on an oral preparation containing 80 mg. of salyrgan and 40 mg. of theophyllin which when given in five daily doses produced a diuresis equal to about 50 per cent of the diuresis following the intravenous administration of 72 per cent of the trials. It is probable that this may be effective in patients requiring frequent diuresis.

All mercurial diuretics are greatly enhanced in effectiveness when given in combination with the acid salts. Ethridge, Meyers and Fulton[10] illustrated this conclusively by comparing the urinary excretion in dogs. The average control urinary volume over a three-hour period was 45 c.c., after salyrgan it was increased to 160 c.c., and after a combination of salyrgan with ammonium chloride it increased to 480 c.c. Clinically, the most profound diuresis can be produced if the patient is given a salt-free neutral diet, ammonium chloride 9 gm. daily, and 2 c.c. of mercupurine on the third day of ammonium chloride therapy.

The major complication with the use of the mercurial diuretics occurs as a result of too profound and too rapid a diuresis. Commonly after a diuresis, individuals without significant edema experience weakness, faintness, and at times confusion. In individuals with edema after a very profound diuresis the same symptoms may be observed and at times they may progress to coma and even death.[26] Such complications are usually easily avoided if more time is taken in eliminating the edema and if large doses of mercurial diuretics are avoided. Patients with these complaints will quickly improve when isotonic sodium chloride is administered.

With diuresis there is a decrease in blood volume due to a loss of the plasma volume, a nearly proportional rise in the serum proteins and a decrease in the pressure in the veins.[23] With this increase in the concentration of the serum proteins there will be an increase in the colloid osmotic pressure of the capillaries. In addition, with the fall in venous pressure, it would appear

logical to expect that the filtration pressure at the venous end of the capillaries would be decreased. Both of these factors would thus permit more fluid from the tissue spaces to enter the blood stream and in turn to be excreted by the kidneys.

The Clinical Application of Diuretics

Diuretics are used most effectively in the management of congestive heart failure in which the blood volume and the venous pressure are usually elevated. The removal of peripheral edema, pleural effusion and ascites results from a reduction of both of these factors. They are also important in the management of dyspnea[2] resulting from left ventricular failure in the absence of peripheral edema, where again a reduction of the blood volume and a decrease in the pressure in the pulmonary veins relieves the pulmonary edema.

In the nephrotic syndrome, the acid salts or measures to increase the colloid osmotic pressure may be quite helpful. Mercurial diuretics are certainly not contraindicated in these cases if there is good renal function. There is little evidence to suggest that they may be significantly harmful to the kidney.

In ascites associated with cirrhosis of the liver or carcinomatosis, diuretics have relatively little value.[13] They may be used, however, to delay the reaccumulation of fluid.

Diuretics are also helpful in decreasing the edema associated with local obstructions to lymph flow or venous return.[29] Their use is indicated in the management of ulcers of the skin over edematous tissue, since the removal of the edema is followed by a more rapid healing of the ulcers. They are sometimes useful in the management of thrombophlebitis associated with edema and inflammation of adjacent tissue. Occasionally patients with swollen edematous joints will have a decrease in joint size, an increased range of motion and less pain following loss of fluid induced by a mild diuresis such as experienced with the acid salts.

Conclusions

The successful use of diuretics depends on an understanding of the factors favoring the production of the edema and if possible a correction of these factors. If it is impossible to correct these factors, they may be altered by diuretics to remove the edema. In order to promote adequate diuresis such general measures as bed rest, a salt-free neutral or acid-ash adequate diet should be used. The acid salts, when given in sufficiently large amounts, may produce an adequate diuresis but if a more profound one is desired, the administration of salyrgan or mercupurine intravenously is indicated.

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EXCHANGE OF VIEWS

People do not take kindly to volunteered advice. It makes very little difference whether such advice be given by an individual or by a professional group. It may be diplomatic to express an idea in the form of a question to have it considered by others—often favorably. A statement put forward in question form suggests merely an exchange of views. Other questions are raised in the ensuing discussion. Through mutual exchange of views and the resulting discussion, working agreements can frequently be reached and reciprocal confidence established. Even when the advice is voluntarily sought and is given by an authority in the given field of competence, it is flattering to the "patient" to be treated as an intelligent person whose reaction and comment is welcomed. Even within his own acknowledged field of competence a speaker can most profitably couch his message in question form. We all like to be regarded as equals and be invited to reply.—*Journal of the Medical Society of New Jersey*, July, 1942.

The Differential Diagnosis of Benign and Malignant Ulcerating Gastric Lesions*

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Livingston and Pack[13] state that in fifteen years some 600,000 persons died of carcinoma of the stomach. This is a larger mortality than has been sustained by the armed forces of the United States in the fifteen years of active warfare in which this nation has engaged. Bloodgood[2] states in regard to carcinoma of the stomach, "ulcer prevention and ulcer cure are a part of cancer prevention and cancer cure."

Certainly we want to give the surgeon the greatest opportunity to reduce the mortality in carcinoma of the stomach by making the differentiation of benign and malignant ulcerating lesions as soon as possible. That this differentiation is often very difficult is freely admitted. Our diagnostic error must be lower than the operative mortality in gastric surgery, or we might better have all patients with gastric ulcers operated upon.

It is not our purpose to discuss the more obvious diagnosis of well advanced gastric carcinomatous lesions. Neither is it our purpose to raise the question of whether or not a benign ulcer ever becomes malignant. We do attempt to define more clearly the various diagnostic features of these two lesions. Since our primary interest is in the correct diagnosis of the individual patient, we have organized the discussion in the usual sequence of diagnosis. When finished, we hope to be able to say, as does Palmer[15]: "It is important to recognize that while there is no pathognomonic sign to prove the benign nature of an ulcer the total evidence available may be sufficient to make this diagnosis highly probable, and, in the course of time, certain."

In the beginning it should be stated that any patient with any type of persistent upper gastro-intestinal complaint who presents himself to a physicain should be given the benefit of a defensible diagnosis at the earliest possible moment. Eusterman[6] makes the statement that any patient with gastro-intestinal complaints or any patient over thirty-five with unexplained weight loss should at once be subjected to roentgenologic and endoscopic examination.

Factors in Diagnosis

History.—We recognize that the differentiation between a benign gastric ulcer and a carcinomatous ulcer by the history alone is practically impossible. There is no complaint of a patient with benign ulcer which a patient with an ulcerating carcinoma may not have. In fact, Gray[7] states that in an analysis of a large series of patients with gastric carcinomas, 50 per cent of them had histories best classified as "ulcerous." There are certain features of history, such as the *classic* history of peptic ulcer, chronicity, periodicity, and early age of original onset, which occur more commonly in benign ulcers. Conversely, there are features, such as "dyspepsia", obstruction, anemia, tarry stools, weight loss, and recent change in symptoms, which are more often associated with carcinoma. The absence, presence, or combination of any of these symptoms, does not, however, rule in or out either diagnosis.

Physical Examination.—Physical examination is of no assistance in differentiating early carcinoma from benign ulcer. There may be epigastric tenderness, some degree of cachexia, and even pallor in either case. An epigastric mass almost invariably points to a carcinomatous lesion

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Read before the Seventy-sixth Annual Meeting of the Michigan State Medical Society, Grand Rapids, September 19, 1941.

although occasionally it may be due to a subacute perforation of a benign ulcer.

Laboratory Procedures.—Routine laboratory procedures are of definite aid in diagnosis. Blood examination may serve to detect an anemia or exclude blood dyscrasias such as pernicious anemia. Occult blood in the stool is of little importance from the standpoint of differential diagnosis; this will be discussed later.

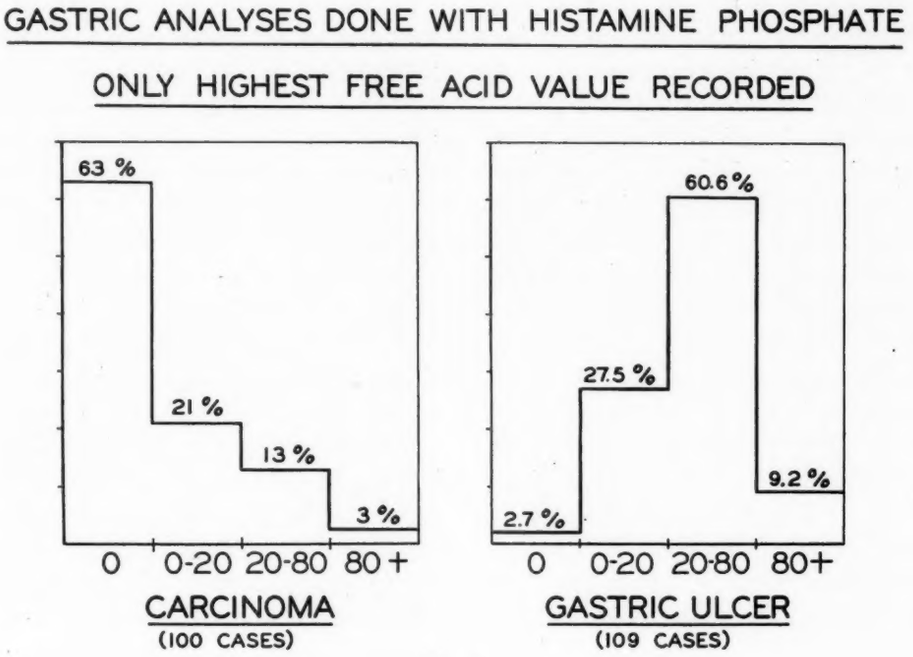


Fig. 1.

The accompanying chart (Fig. 1) illustrating results of gastric analysis in gastric ulcer and carcinoma, agrees fairly closely with similar work of Drossner and Miller,[4] Oughterson and Irons,[14] and Hurst and Venables.[11] The need for caution is emphasized here in that gastric carcinoma may be accompanied by normal acidity or even hyperacidity. It may be true that benign ulcer can exist with persistent achlorhydria; however, for practical purposes, we believe this need not be considered and that one is justified in making the generalization that an ulcerating gastric lesion in the presence of complete, persistent anacidity must be treated as a malignancy.

X-ray Diagnosis.—X-ray is the greatest single aid in attempting a differential diagnosis of benign and malignant ulceration of the stomach. We prefer to leave the discussion of the distinguishing x-ray features of the two lesions to the roentgenologist. It should be emphasized, however, that this differentiation is at times so difficult that no roentgenologist maintains infallibility. Our experience at the University Hospital, and the figures quoted by Drossner and Miller,[4] Walters,[18] and Eusterman[6] lead us to believe that the percentage of error on initial examinations is between 10 and 20 per cent.

The chief point of confusion in the x-ray differentiation is the group in which the roentgenologist himself frankly reports an inability to make a differentiation. Then there is the much smaller but almost always present group in which the roentgenologist is wrong in calling a benign ulcer malignant, a malignant ulcer benign, or in overlooking the lesion completely on the initial examination.

The only special feature of the x-ray examination which we wish to mention is the location of the ulcer. It is probably possible to summarize, as Palmer[15] does in his review, and say that almost all ulcers along the greater curvature are malignant and that those on the lesser curvature are usually benign, except for prepyloric ulcers, which are more often malignant.

We will mention follow-up x-ray examinations later.

Gastroscopic Diagnosis.—Gastroscopic examination is becoming increasingly more available and is proving a valuable adjunct in the differentiation of the two lesions we are considering. As with x-ray, it is frequently not possible to make a definite differentiation on the initial examination. Gastroscopy is of particular value in those patients in whom the x-ray examination has been unsatisfactory to either the roentgenologist, the clinician, or both. It is our own belief that, if available, gastroscopy should be employed in any patient with an ulcerating lesion of the stomach which is not obviously a carcinoma by x-ray.

After exhausting the possibilities of our initial examination, there will have been made a definite diagnosis of malignancy on a certain number of cases and immediate surgery will have been recommended for them. On the much larger remaining group there will be a tentative diagnosis with shadings of opinion ranging from questionably malignant ulcers to probably benign ulcers. These patients in whom the immediate and fairly absolute differentiation is impossible must be followed on medical treatment for a time with rigid control.

Treatment.—Treatment of these patients before the nature of the lesion has been established has such great diagnostic import, as well as therapeutic value, that we believe a word as to what we mean by adequate medical treatment is indicated. To us this indicates the procedure usually employed on the Medical Wards of the University of Michigan Hospital. The basic features are as follows:

1. Strict confinement to bed.
2. Progressive Sippy diet with feedings every hour on the hour.
3. Some type of antacid every hour on the half-hour. (This is usually Calcium Carbonate, alternating with magnesium carbonate; magnesium tri-silicate; or aluminum hydroxide.)
4. Tincture of belladonna.
5. Lavages as indicated.

Length of Follow-up.—The amount of time a patient should be followed is a controversial point. Drossner and Miller[4] mention two to three months for complete healing; MacHardy[7] suggests six weeks as the initial treatment period. Our usual procedure has been to allow for the completion of the twenty-one day progressive Sippy regime and then to check progress with x-ray and to add gastroscopy if indicated. It is also necessary to follow patients longer on modified treatment plans still with rigid control.

Symptomatic Follow-up.—A patient with a benign gastric ulcer should have partial relief of symptoms after a day or two on an adequate program and should approach complete symptomatic relief after a week or two. Drossner and Miller[4] report that 80 per cent of their patients with benign ulcers showed at least temporary relief from treatment. Eighty-six per cent of the 160 patients we reviewed with benign ulcer with symptomatic follow-ups available, showed at least partial relief of symptoms. The pitfall here for both the doctor and the patient is that the patient with the confusing ulcerating neoplasm with symptoms of ulceration will also have partial relief of symptoms. Walters, Gray and Priestly[19] report that 82 per cent of their patients with carcinoma of the stomach who had had ulcer management showed at least partial relief of symptoms. Ledaux[12] reports cases with complete symptomatic relief who proved to have carcinoma. We reviewed the records of twenty-one patients who eventually proved to have ulcerating gastric neoplasms who had been followed on strict medical treatment. Of these, six had complete relief of symptoms and eight had partial relief of symptoms. The accompanying table summarizes the above information. It is fair to state that while lack of symptomatic relief after treatment has diagnostic importance, the presence of such relief is apparently not of much differential diagnostic significance.

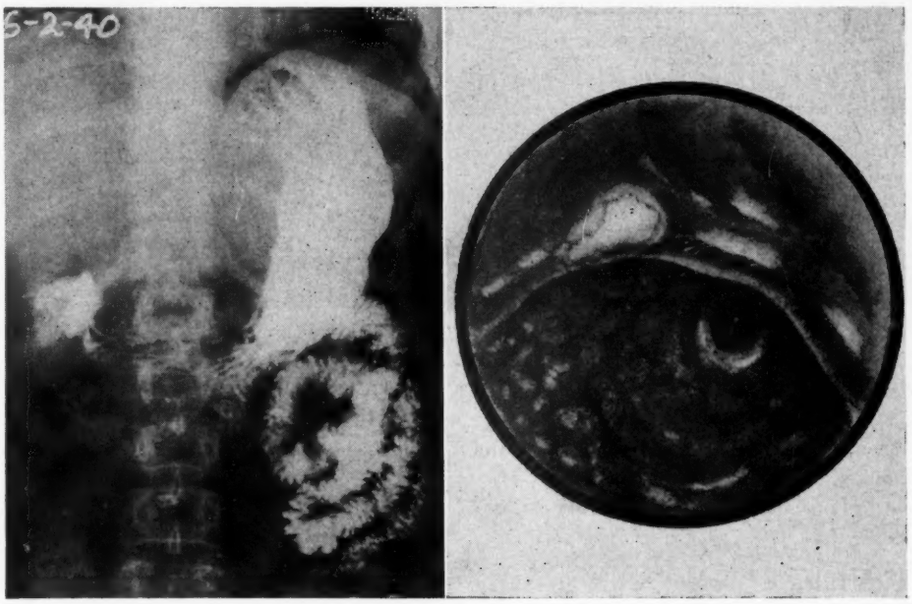
TABLE I. AT LEAST PARTIAL SYMPTOMATIC RELIEF

	Ulcers	Malig.
U of M Hospital	86%	66%
Drossner & Miller	80%	
Walters, Gray, Priestly		82%

Occult Blood in the Stool on Follow-up.—**Gutman and Bertnaud[9] emphasize the grave diagnostic import of the persistent presence of occult blood in the stools. It is commonly accepted that a persistently positive guaiac reaction for occult blood in the stool may be regarded as strong evidence of carcinoma; its**

absence, **however, does not prove or eliminate a diagnosis of carcinoma.**

X-ray Follow-up.—Here again there is great but not absolute aid. The ulcer which either does not heal at all or increases in size on adequate treatment must, for safety's sake, be considered malignant. The ulcer which has healed completely at the time of the first follow-up examination may be presumed to be benign; it cannot, however, be dismissed from consideration. One must be sure that it remains healed; that is, the patient must be followed with clinical and x-ray control of modified treatment. The more difficult and confusing group will be, of course, that in which incomplete healing has occurred. Each extreme of this group so closely approaches one of the two groups just previously mentioned, that, practically, its treatment is the same. In the bulk of this group with further strict follow-ups one must, of course, give consideration to such factors as symptomatic relief and blood in the stools. Gastroscopy has much to offer in these patients on whom prolonged and rigid follow-ups are necessary. It is of value even if the patient has not been previously seen by the gastroscopist, and even more so if he has been.



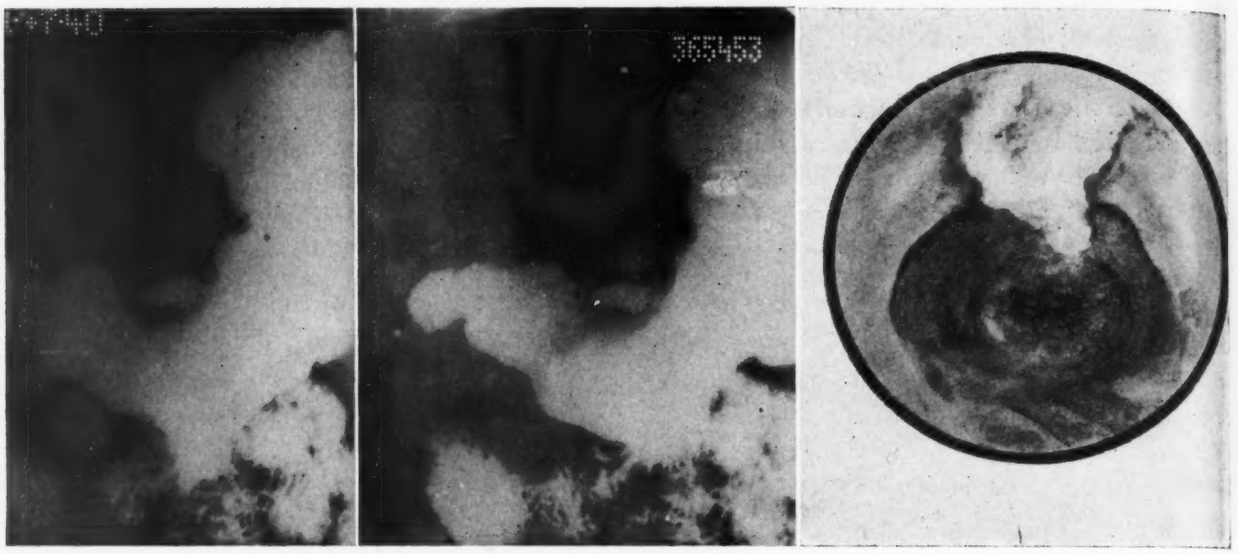
Figs. 2a and 2b.

Eventual Result.—We believe that every patient with an ulcerating gastric lesion should, within a reasonable length of time, be followed to the stage of complete symptomatic relief and x-ray evidence of healing before a diagnosis of benign gastric ulcer is finally tenable. This "cure" must be maintained under observation for a period of many months. These are the only rigid criteria that we advance. We consider that a conservative and common-sense evaluation of all the phases of the initial and follow-up examination is more to be desired than any more detailed and precise criteria. If the length of time of follow-up necessary for the diagnosis of benign gastric ulcer seems too prolonged, one must remember that when the diagnosis is made the patient is also cured.

We present three cases illustrating various principles mentioned above.

Case 1.—E. S. The patient was a fifty-two-year-old white woman with a five-year history of progressive epigastric distress, heartburn and a sense of postcibal "fullness." Examination revealed only vague discomfort on deep palpation in the epigastrium. Routine laboratory procedures were negative; gastric analysis was not done. An upper gastro-intestinal x-ray on June 2, 1941, was reported as showing no abnormalities (Fig. 2A). On the same date the patient had been seen by the gastroscopist who reported a shallow gastric ulcer with nodular tissue extending to the pylorus which he interpreted as carcinoma or a severe degree of hypertrophy (Fig. 2b). He advised operation.

The patient was operated on June 20, 1941, and, in spite of the fact that the surgeon found no evidence of abnormality, a partial resection was done. The



Figs. 3a and 3b.

pathologist reported a medullary carcinoma in the mucosa not extending to the muscularis mucosa. Histologically Grade III. There were some very superficial ulcerations.

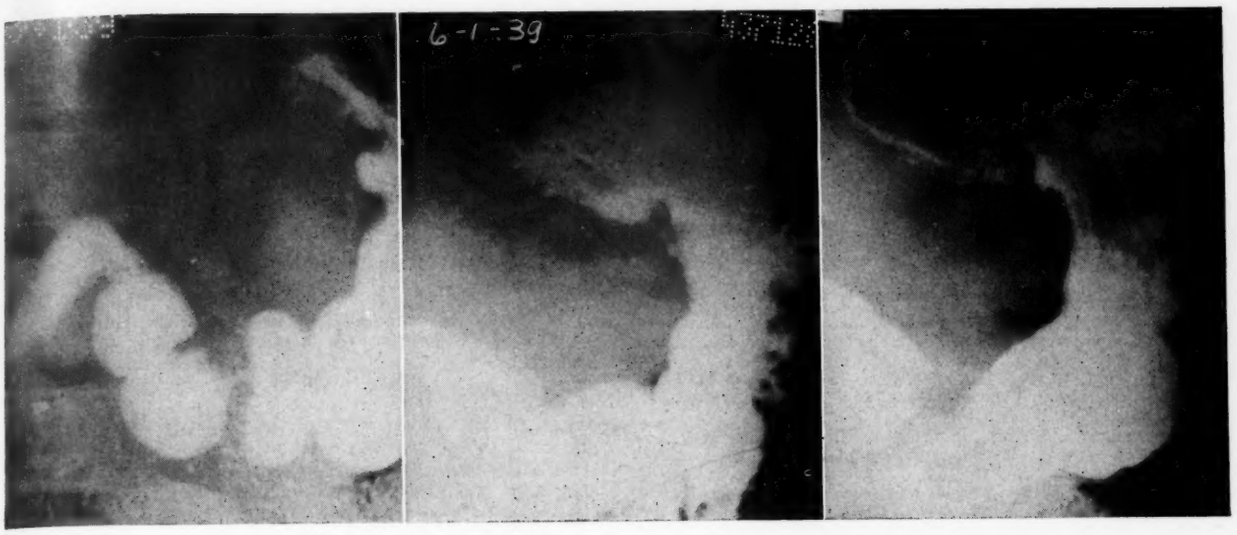
This then illustrates a patient with an early carcinoma which was missed completely by x-ray but which was diagnosed by gastroscopy and operated much earlier than would have been possible without complete diagnostic studies.

Case 2.—S.E. was a white man, aged thirty, who had been seen in 1935 with a diagnosis of aerophagia. He was seen again September 4, 1940, with complaints of vague upper abdominal discomfort, before and after meals, and belching after fatty foods. Complaints had been present on several occasions but had disappeared without treatment. A tentative diagnosis was made of gastro-intestinal neurosis and the patient was discharged with Amphojel. He returned two months later stating that his complaints had been completely relieved for a time but had now reappeared to a lesser degree than previously. On this admission examination was negative. No anemia was found. Thirty-eight degrees of free hydrochloric acid 15 minutes after histamine was reported. Stool examination revealed positive guaiac test. The patient was submitted to gastro-intestinal x-ray on November 7, 1940, and gastroscopy on November 19, 1940 (Figs. 3a and 3b). It was the opinion of the roentgenologist and the gastroscopist that this prepyloric ulcer was probably malignant.

A partial gastric resection was done on November 29, 1940. The pathologist reported an area of adenocarcinoma in the edge of an ulcer with multiple metastases to the regional lymph nodes.

Here then is illustrated the importance of complete diagnostic work-up. Certainly routine history, examination and laboratory procedures gave little indication of the severe pathology present.

Case 3.—A. B. was a white man, aged forty-five, who complained of a two-year history of burning epigastric pain before meals, relieved by food or soda, and the occurrence of one small hematemesis. Examination revealed epigastric tenderness. Laboratory examinations revealed no anemia and forty-five degrees of free hydrochloric acid thirty minutes after histamine. Throughout the entire course, an occasional positive guaiac reaction was noted on stool examination. Because of the hematemesis the patient was treated for one month before upper gastro-intestinal x-ray was done on March 1, 1939 (Fig. 4A). At this time the patient had no symptoms, but on gastroscopy a large posterior wall ulcer was observed with irregular areas about the crater suggesting inflammatory changes or neoplasm. Between this time and October 14, 1940 nine x-ray examinations were done. On the film of June 1, 1939 (Fig. 4B) marked reduction in the size of the ulcer was noted and two months later no ulcer could be conclusively demonstrated. At that time the patient had no symptoms. In November, 1939, symptoms recurred and ulcer was again demonstrated in the x-ray. By February, 1940, the symptoms had disappeared and the ulcer was much smaller. From this time until October 14, 1940, symptoms were occasionally present and there was only slight change in the ulcer. The examination of October 14, 1940 (Fig. 4C) revealed an ulcer which had changed little in size. At that time gastric analysis revealed only ten degrees of free hydrochloric acid in one of four specimens after histamine. On October 18, 1940 the patient was submitted to total gastrectomy and a poorly differentiated carcinoma infiltrating the entire cardia and extending into the esophagus was found.



Figs. 4a, 4b, and 4c.

We feel this patient was followed on medical treatment far beyond the time when a common sense evaluation of all the available information would have indicated the wisdom of operation. It is of great importance to bear in mind the complete symptomatic relief and almost complete x-ray healing observed in this patient with a carcinoma.

Summary

In summary, the differentiation of benign and malignant ulcers of the stomach is extremely difficult. It requires the full coöperation of the clinician, the laboratory, the roentgenologist, often the gastroscopist, and always the patient.

1. Helpful inferences may be drawn from the history but no absolute opinion is at all possible from it.

2. Physical examination is not usually helpful.

3. Gastric analysis offers absolute aid in that an ulcerating gastric lesion in the presence of persistent achlorhydria must be regarded as malignant.

4. The original x-ray examination, while of the greatest importance, cannot always establish the diagnosis accurately.

5. Gastroscopic examination is frequently a valuable adjunct, but again is not infallable.

6. Careful follow-up examination, after a period of carefully supervised medical treatment, is of greatest importance.

7. Persistent occult blood in the stool must be regarded as highly suggestive of malignancy.

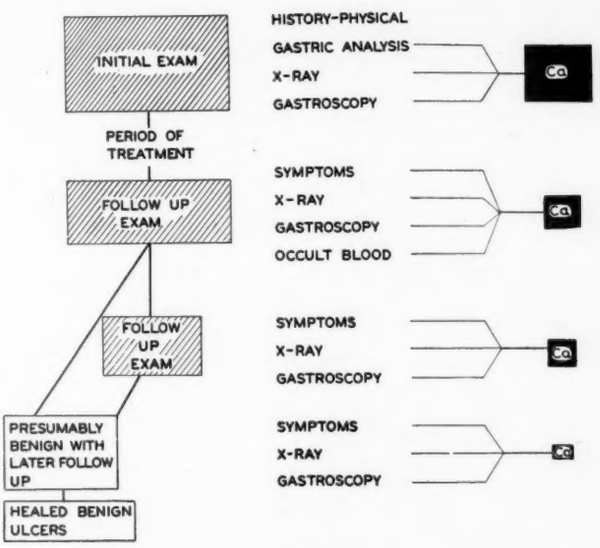


Fig. 5.

8. Anything but *complete* symptomatic relief is of no value as a differential point, and this may occur in carcinoma.

9. Complete x-ray healing is highly suggestive of a benign lesion but can occur in a malignant one. It is not unusual for partial x-ray healing to occur in malignant ulcers.

10. Gastroscopic follow-up will often add to the value of x-ray follow-up.

In Figure 5 we attempt to present graphically the general plan of diagnosis and follow-up examinations necessary to finally make this differentiation.

Finally, the only safety lies in thorough investigation at every stage of the diagnostic procedure, and finally in following the patient to com-

plete sustained healing. In other words, the eventual, final diagnosis of benign gastric ulcer implies that there is no longer an ulcer.

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PUT UP, OR SHUT UP!

"The introduction of the 'Hampton Bill' in the session of the legislature just closed signalizes the end of the period of grace in which," says the *Westchester Medical Bulletin*,* "the medical profession has been permitted to carry on a dignified debate as to whether it should or should not give unreserved support to medical expense insurance under medical auspices."

Due to the common-sense decision of the House of Delegates at its 1942 Annual Meeting, such unreserved support for all three of the plans operating in the State of New York was obtained. The reference committee of the House of Delegates reported "that the situation is serious and the emergency genuine." It specifically recommended:

"1. That all county medical societies be contacted and assisted and immediately urged to coöperate with approved plans.

"2. That the State Medical Society through its subcommittee give all aid at its command to help these county medical societies succeed with this work.

"3. That the principles of nonprofit medical insurance be reëmphasized as adopted in the 1941 report.

"4. That intense energy be used to obtain a larger number of subscribers among the low-income groups.

"5. That hospitalization and medical care plans remain independent of each other.

"6. That the members of this House shall act as individual spokesmen to interest the *Comitiæ Minoræ* and Economic Committees of the component medical societies in nonprofit medical insurance . . ."†

Let us get down to a little plain speaking on this subject. The directions of the House of Delegates as set forth above are direct and simple. Boiled down, they say: *Get busy. This means you!*

You may or may not have attended the meetings of the House. If you did, you heard the report and have no excuse for not getting busy, if you have not already done so. If you didn't attend, but can read, you saw in this JOURNAL, in the issue of June 1, an editorial "Now for Action," which was based on the cited directions of the House of Delegates and which urged you to get behind your regional nonprofit medical expense indemnity plan *and push.*

There is only one way in which the membership of the Society can be told the facts of life at reasonable expense, and that is through the printed word—in this case, your JOURNAL. If you don't read it, the entire profession of the state may be placed in jeopardy; if you do read it, but do nothing to comply with the specific instructions of your own legislative body, then, no matter what happens, the medical profession can blame nobody or anything but its own indifference.

Put up, or shut up! "The 'Hampton Bill' was introduced at the direct request of the Insurance Department and would almost certainly have been adopted by the legislature if the Insurance Department had not later requested that it be held over for one year."* Of that year, seven months have now elapsed. The sands are running out. What will you do about it?

If *you* are concerned with this problem, the first logical step is to become a professional member of your regional plan:

1. The Medical Expense Fund, Brooklyn, New York.
2. Medical and Surgical Care, Inc., Utica, New York.
3. Western New York Medical Plans, Inc., Buffalo, New York.

When you have done so, your next opportunity to make your influence felt is to bring the plan to the attention of your patients with the recommendation "that they request their employers, trade associations, and other groups with which they are affiliated to avail themselves to this modern type of protection against medical economic catastrophes."* It's *your* plan; it's *our* responsibility; *you* have to make it work. If you don't, and the time is growing short, you may expect the Hampton Bill or a similar one to be passed by the legislature next year whereby the services of physicians will become merely incidental to hospitalization. This is plain speaking: Nobody will do it for you. Do it yourself, and do it now. Put up, or shut up!—*New York State Journal of Medicine,* July 1, 1942.

*Westchester Med. Bull., 10:5, (May 1), 1942.

†Minutes, House of Delegates, N. Y. State Jour Med., 42: 1283, (July 1) 1942.

*N. Y. State J. Med., 40: No. 13, 983 (July 1) 1940; ibid. 41: No. 13, 1335, (July 1) 1941.

President's Page

FAREWELL!

As my year's term of service draws to a close, at the 77th Annual meeting in Grand Rapids, we look upon a world strangely different from that of September, 1941. At that time the nation's program of preparedness was under way; now we are in the war to the full extent of our resources.

Our members, following the worthy tradition of previous wars, have responded nobly. This fall, practically every physician in Michigan will be found engaged in doing his share in the all-out war effort of the nation. To each of you, I extend greetings and wishes for good luck, confident in the belief that when this war is over, the world will be a better place to live in.

Henry R Carstens

President, Michigan State Medical Society

EDITORIAL

GENERAL PRACTITIONERS AT MSMS MEETING

■ An unusually attractive program of outstanding speakers has been arranged for the General Practice Section, Friday morning, September 25, 1942, under the chairmanship of Arch Walls, M.D., of Detroit.

The Michigan State Medical Society has been a leader in organizing a special section for the general practitioner in the national association as well as in the state society. In previous years the physician whose practice is not limited has been forced to attend a section in which technical papers, particularly suitable for those who are limiting their work, are emphasized. In many instances the material has not been too practical and worth while to the general practitioner.

It is significant that about three-quarters of the members of the Michigan State Medical Society do not limit their practice and are not interested in purely technical discussions. This group, which is the basic structure of organized medicine, should register and attend their particular section meeting. During this war period the value of practical information is especially desirable. Each part of the program seems to promise no wasted time and every active moment will be full of real digestible meat.

The section organizers emphasize the fact that this is the general practitioners' first opportunity to give aid toward a permanent organization for themselves. There will probably be discussed, in the business meeting, a move to obtain better representation of the general practitioner in the hospitals. The Section officers are offering an opportunity which must be seized now or it may be lost forever.

YOUR HELP IS NEEDED

■ The National Physicians' Committee, whose activities were approved by the House of Delegates of the AMA at the June meeting, is asking physicians to interview congressional candidates on two proposals vital to organized medicine:

a. Status and Rights of the Profession.

"If I am elected Congressman on November 3, 1942, and an amendment or amendments to the Sherman Antitrust law are introduced into the House of Representatives exempting the professions—engineers, lawyers, doctors, dentists, architects, etc.—from the 'trade and commerce provisions' of the Antitrust laws, and giving professional organizations the rights which are now accorded to labor unions, or other legislation is proposed which is designed to accomplish the same result,

"I will or I will not vote for such exemptions."

(To be signed by the congressional candidate)

b. Compulsory Hospitalization, Sickness or Health Insurance.

"If I am elected Congressman on November 3, 1942, and amendments to the Social Security Act or other legislation are introduced into the House of Representatives providing for payroll deductions or other taxation to pay for hospital care costs, compulsory health or sickness insurance—or legislation the effect of which would be authorization for providing medical care by laymen or by others than duly qualified Doctors of Medicine,

"I will or I will not vote against the passage of such legislation."

(To be signed by the congressional candidate.)

Five thousand doctors in 435 districts have been asked to present this request to the representatives and senators to determine the status and rights of the profession. To achieve this end it will be necessary for every physician to lend his influence that assurance of the best medical service may be guaranteed to the people.

STRIKES AND ABSENTEEISM— A NEW INFECTIOUS DISEASE

■ Franklin Top did not include this communicable disease in his new book but it is just as real a menace to the health of the nation as typhus or scarlet fever and just as contagious. The physician's responsibility in its control is important and grave. His loyalty to the worker is sincere and yet this realization that loss of production is serious and the complications are

widespread and often fatal, demands that his trained mind and knowledge use its most to protect his patient even though the remedy may not be tasteful to him. The physician is not going to strike or lay-off. He is going to continue, just as he has done for many years, to serve the misled patient even when the landlord and the butcher refuse further credit. The worker knows that. The physician by his example and kind advice may demonstrate the worth-while value of service as the great reward in itself. When service is seen as its own reward then and only then will the worker achieve his deserved high place in world planning.

DISCUSSION CONFERENCES

■ THE prediction made in THE JOURNAL of September, 1941, that the discussion conferences at the Annual Meeting of the Michigan State Medical Society would be a most valuable innovation certainly proved correct. This year the conferences have been improved and enlarged. Twenty-one of the world's best qualified specialists will present their views and findings to you at a public address on these days and then be available for questions at the close of the afternoon session.

All meetings will be held in the Civic Auditorium and Pantlind Hotel in the "Furniture Capital of America," the second city of Michigan.

If you are interested in your medical progress you must attend the Seventy-seventh Annual Meeting of the Michigan State Medical Society, September 23, 24, and 25, 1942—the biggest three days in medicine that Michigan has ever known.

PROCUREMENT AND ASSIGNMENT

■ **P. R. Urmston, M.D., of Bay City, Chairman of the Medical Preparedness Committee of the Michigan State Medical Society, and now officially listed as Michigan Consultant to the War Manpower Commission, recommends that every physician in Michigan under forty-five years of age should apply for a commission in the medical corps of the United States armed forces and have his physical examination. Only in this manner is it possible for the Procurement and Assignment Committee officially to establish as essential those doctors of medicine who are not available to the armed forces because of civilian necessities. In that manner deferment under Selective Service is assured.**

If this procedure is not followed the physician is subject to induction by his local draft board.

THE SEARCH FOR UNITY

If we are to have a durable peace after the war, if out of the wreckage of the present a new kind of cooperative life is to be built on a global scale, the part that science and advancing knowledge will play must not be overlooked. For although wars and economic rivalries may for longer or shorter periods isolate nations and split them up into separate units, the process is never complete because the intellectual life of the world, as far as science and learning are concerned, is definitely internationalized, and whether we wish it or not an indelible pattern of unity has been woven into the society of mankind.

There is not an area of activity in which this cannot be illustrated. An American soldier wounded on a battlefield in the Far East owes his life to the Japanese scientist, Kitasato, who isolated the bacillus of tetanus. A Russian soldier saved by a blood transfusion is indebted to Landsteiner, an Austrian. A German soldier is shielded from typhoid fever with the help of a Russian, Metchnikoff. A Dutch marine in the East Indies is protected from malaria because of the experiments of an Italian, Grassi; while a British aviator in North Africa escapes death from surgical infection because a Frenchman, Pasteur, and a German, Koch, elaborated a new technique.

In peace, as in war, we are all of us the beneficiaries of contributions to knowledge made by every nation in the world. Our children are guarded from diphtheria by what a Japanese and a German did; they are protected from smallpox by an Englishman's work; they are saved from rabies because of a Frenchman; they are cured of pellagra through the researches of an Austrian. From birth to death they are surrounded by an invisible host—the spirits of men who never thought in terms of flags or boundary lines and who never served a lesser loyalty than the welfare of mankind. The best that every individual or group has produced anywhere in the world has always been available to serve the race of men, regardless of nation or color.—RAYMOND B. FOSDICK: The Rockefeller Foundation—A Review for 1941.

WHAT ABOUT GRAND RAPIDS?

A Busy Thoroughfare in Grand Rapids

GRAND Rapids, the mecca for Michigan Medicine September 23, 24 and 25, has an interesting history with its rapid and distinctive industrial development. In size, it is the second city of this state. The annual conventions of the Michigan State Medical Society have become so large that only two cities in the state have convention space and hotel facilities sufficient to accommodate the meetings, as well as exhibits which have become a most important feature of the annual meetings within recent years. The evolution of scientific medicine has caused a great development by way of invention of diagnostic and treatment equipment as well as refinement in drugs and foods intended for the sick.

Grand Rapids has an interesting history. The name is descriptive of the rapids of the Grand River. A little over a hundred years ago, one hundred and sixteen, to be exact, Louis Campau, a French pioneer, established a trading post there, purchasing the ground for ninety dollars. A second pioneer was Lucius Lyon, who, having surveyed the site for the government, had intended to buy it for himself. He was forced to purchase it, however, from Campau at a much higher price. It is said that this transaction resulted in an estrangement between the two pioneers, the effect of which is seen in the present peculiar layout of the downtown district of the city. The two pioneers disagreed as to the name of the locality. Campau insisted on the name "Grand Rapids," while Lyon wanted it called "Kent" after a chancellor of New York State. The name of Chancellor Kent, however, is perpetuated in the name of the county. All this is a matter of history.

Located in the midst of a lumbering district, from the beginning prosperity was assured to the town. Perhaps for more than anything else, Grand Rapids today is preëminently known throughout the nation as the Furniture City of America, just as Detroit is known throughout the world as the great automobile center.

Grand Rapids is characterized by the diversity of its industrial operations, best known of which is furniture manufacturing for which it is famous the world over. There are more than 500

manufacturing establishments in the city, producing more than 2,500 different products which are grouped mainly into woodworking, metalworking and miscellaneous. In the last group are several large subdivisions including graphic arts, food products, paper products, gypsum mining and products, chemicals and textiles.

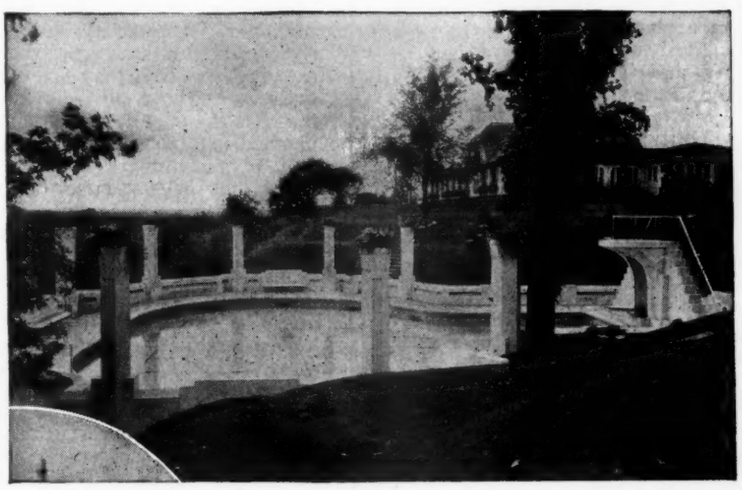
The metal industry vies for importance with the woodworking industry. A large number of plants are devoted to producing a wide variety of metal products including woodworking and metalworking machinery; hardware for automobiles, furniture, refrigerators, plumbing, and building; automobile bodies and trailers and parts. This industry which employs thousands of men is one of the most rapidly developing industrial groups and is a very important factor in the economic well-being of the community.

Also Grand Rapids contains the largest sticky fly paper factory in the world, the largest producers of school, church and theater seats, carpet sweepers, metal belt lacers, gypsum products, window sash pulleys, paper boxes, automatic musical instruments and plumbing and bathroom fixtures. In order to indicate the versatility of Grand Rapids manufacturing, a short list of a variety of products made there might prove interesting. Bodies for several nationally known makes of automobiles are built here. Its other contributions to the automotive world include nationally known tires and bumpers, as well as metal dash boards, hardware, refinements for car interiors, seat and back springs, and other parts and minor accessories.

Grand Rapids stands high as a printing center. There are some 60 plants in the city, and among them are producers of photoengraving, lithography, printing and very high-grade advertising literature.

THE PANTLIND HOTEL

The inhabitants of the city number 176,000. There are 2,560 retail establishments, 80 schools, 150 churches, 11 hotels and 27 theaters. Grand Rapids is a city with a personality. It is essentially a city of homes, ministered to spiritually and culturally by the number of churches and schools mentioned. The material wants of the inhabitants are supplied by four large departmental stores and scores of small smart shops. It seems scarcely necessary to comment on Grand Rapids as a convention city, since the fact is already known to the medical profession of the state which has met there a number of times and has partaken of the hospitality of the city. The medical profession of Grand Rapids is progressive and equal in ability to that of any city in the continent.



BLYTHEFIELD COUNTRY CLUB, GRAND RAPIDS

The 77th Annual Meeting
Grand Rapids — 1942

ANNUAL MEETING INFORMATION

DIRECTORY

Headquarters and Registration....Civic Auditorium
Telephones: 9-1732 and 9-1475
Hotel Headquarters.....Pantlind Hotel
Telephone: 9-7201
Scientific and Technical Exhibits..Civic Auditorium
General Assemblies, Black and Silver Ballroom Civic Auditorium
Telephones: 9-1547, 9-1716, 9-1738
Publicity, Press Room, Room A..Civic Auditorium
Telephone: 9-7201
MSMS Hospitality Booth, Exhibit Floor..... Civic Auditorium
Woman's Auxiliary, Headquarters and Registration .....Pantlind Hotel

* * *

MEETING ROOM DIRECTORY

Pantlind Hotel

Swiss Room—Southwest corner of hotel. Use corridor from lobby.
Colonial Room—Southwest corner of lobby
Ball Room—West of lobby—up grand staircase
Grill Room—Northwest corner (next to the Pub)
Parlor A-B—Mezzanine, directly east of elevators.

Civic Auditorium

Black and Silver Ballroom—West side of building *(through exhibits)*
Rooms B-C-D—East side of building, to right of entrance
Room F—South of Black and Silver Ballroom, off lobby *(through exhibits)*
Room G—Above Room F *(through exhibits)*
Red Room—Southwest corner, *second floor,* next to Room F *(through exhibits)*
Directors' Room—Southeast corner, *second floor (through exhibits)*

* * *

Register—Exhibit Floor, Civic Auditorium, Grand Rapids—as soon as you arrive.

Hours of Registration daily 8:30 a.m. to 5:30 p.m. on Tuesday, Wednesday and Thursday, September 22-23-24, and from 8:30 a.m. to 3:30 p.m. on Friday, September 25.

Admission by badge only, to all scientific assemblies and section meetings. Monitor at entrance.

BRING YOUR MSMS OR AMA MEMBERSHIP CARD TO EXPEDITE REGISTRATION.

No registration fee to members of the Michigan State Medical Society.

* * *

Physicians, not members, if listed in the American Medical Directory, may register as guests upon payment of $5.00. This amount will be credited to them as dues in the Michigan State Medical Society FOR THE BALANCE OF 1942 ONLY, provided, they subsequently are accepted as members by their County Medical Society.

* * *

Guests—Members of the American Medical Association from any state, or from a province of Canada, and physicians of the Army, Navy and U. S. Public Health Service are invited to attend, as guests. Please present credentials at Registration Desk.

Bona fide doctors of medicine serving as interns, residents, or who are associate or probationary members of county medical societies, if vouched for by an MSMS Councilor or the president or secretary of the county medical society, will be registered as guests. Please present credentials at Registration Desk.

* * *

Telephone Service—Local and Long Distance telephone will be available at entrance to Black and Silver Ballroom in the Civic Auditorium, as well as in the Pantlind Hotel.

In case of emergency, doctors will be paged from the meetings by announcement on the screen.

During meetings call 9-1547; 9-1716; 9-1738.

At other hours, call the Pantlind Hotel, 9-7201, or the Registration Desk in the Exhibit Hall, Civic Auditorium, 9-1732 or 9-1475.

* * *

Checkrooms are available in the Pantlind Hotel, and in the lobby of the Exhibit Hall, Civic Auditorium.

* * *

The progressive Doctors of Medicine of Michigan will be present at the annual meeting of the Michigan State Medical Society, September 23, 24, 25 in Grand Rapids.

SPECIAL EXHIBIT AT MSMS MEETING ON "THE WAR EFFORT"

Sponsored by the Procurement and Assignment Service, and Medical Officer Recruiting Board.

The Procurement and Assignment Service of Michigan, which exists for the benefit of (a) the civilian population; (b) the protection of physician; and (c) the aid of the armed forces, determines those physicians who are essential to the health of the community. All others are deemed available for military service. Since May 1, 1942, recruitment of physicians for the U. S. Army has been carried on by the Medical Department Officer Recruiting Board of Michigan. All physicians under the age of 45 now apply for Army commissions through the Medical Recruiting Board, 320 Federal Building, Detroit. Applicants who are physically qualified are commissioned as First Lieutenant or Captain. A few highly qualified applicants over the age of thirty-seven are referred to the Surgeon General for the grade of Major.

The Procurement and Assignment Service and the Medical Recruiting Board have worked together in close coöperation so that no physician declared essential is commissioned.

Acknowledgment—The Michigan State Medical Society sincerely thanks the following friends for their sponsorship of lecturers at the 1942 meeting:

Children's Fund of Michigan, sponsor of Clifford G. Grulee, M.D., Evanston, Illinois.

Michigan Department of Health, sponsor of Philip F. Williams, M.D., Philadelphia.

* * *

Essayists are very respectfully requested not to change time of lecture with another speaker without the approval of the General Assembly. This request is made in order to avoid confusion and disappointment on the part of the audience.

* * *

Scientific and Technical Exhibits—116 displays—will open daily at 8:30 a.m. and close at 6:00 p.m. with the exception of Friday when the Exhibits will close at 3:00 p.m. Intermissions to view the exhibits have been arranged during the morning and afternoon General Assemblies.

PLEASE REGISTER AT EACH BOOTH

* * *

Wm. A. Hyland, M.D., Metz Building, Grand Rapids, is General Chairman of the G. R. Committee on Arrangements for the 1942 MSMS Annual Meeting.

* * *

Postgraduate Credits are given to every member who attends the Postgraduate Conference on War Medicine, the annual meeting of the Michigan State Medical Society, Wednesday, Thursday, Friday, September 23, 24, 25 at Grand Rapids.

* * *

Press Relations Committee—W. B. Mitchell, M.D., Grand Rapids, Chairman; Lynn A. Ferguson, M.D., Grand Rapids; J. R. Venema, M.D., Grand Rapids.

* * *

Parking—Do not park your car on the street. Convention parking near the Civic Auditorium will be marked off with suitable sidewalk signs. The Grand Rapids Police Department will issue courtesy cards (at Registration Desk) for out-of-town autos, which give parking privileges but do not apply to metered spaces. Nearby parking lots are available, as well as convenient indoor parking facilities. The indoor parking rate at the Pantlind Garage is 75c for twenty-four hours, and 25c for each eight hours (or portion) thereafter. This new garage is close to the Pantlind Hotel and the service is more superior than in the past.

The MSMS Delegates will convene Monday, September 21, at 6 p.m. for the Speaker's Reception, Swiss Room, Pantlind Hotel, and at 7:00 p.m. for the Delegates' Dinner, Colonial Room, Pantlind Hotel. The First Meeting of the House of Delegates will be held in the Ballroom, Pantlind Hotel, at 8:00 p.m.

The Second Meeting of the House of Delegates is scheduled for Tuesday, September 22, at 10:00 a.m.; and the Third Meeting is scheduled for Tuesday, September 22, at 8:00 p.m.

All MSMS members are invited and urged to attend the meeting of the House of Delegates.

COUNTY SECRETARIES' CONFERENCE

Furniture Club, Pantlind Hotel

Wednesday, September 23, 1942

LUNCHEON—12 to 1:30 P. M.

D. C. Bloemendaal, M.D., Zeeland, Presiding

PROGRAM

1. "The Michigan Picture in Medicine (10 min.)
   L. Fernald Foster, M.D., Bay City
   Secretary, Michigan State Medical Society

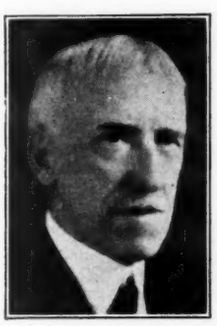
2. "Procurement and Assignment" (30 min.)
   Lt. Colonel Sam F. Seeley, M.C.,
   Exec. Officer, Procurement & Assignment
   Service, Washington, D. C.

All Members of the State Society will be Welcomed at this Conference

Michigan Medical Service. The Third Annual Meeting of the Michigan Medical Service Membership will be held Tuesday, September 22, at 2 p.m. in the Ballroom of the Pantlind Hotel.

Members of Michigan Medical Service are all the members of the MSMS House of Delegates plus the Directors of Michigan Medical Service. The Officers' Reports and Election of Directors will be on the Agenda of the Annual Meeting.

* * *



Andrew P. Biddle, M.D.

Andrew P. Biddle, M.D., Patron of Postgraduate Medical Education in Michigan, after whom the Biddle Oration of the Michigan State Medical Society has been named.

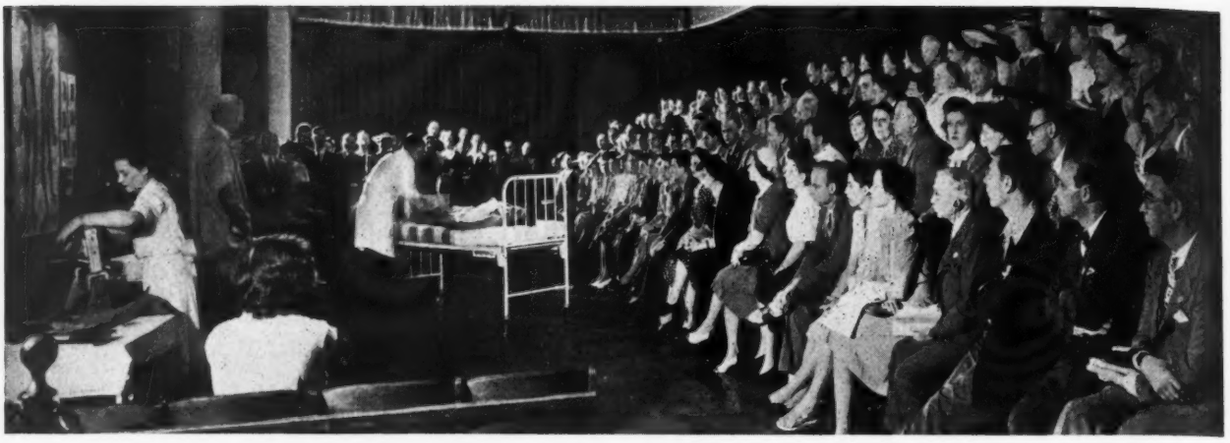
* * *

Guest Golf—The Chairman of the Grand Rapids Commitee has arranged that MSMS members may play at all country clubs in the Grand Rapids District upon presentation of MSMS Membership Card and payment of greens fees.

Due to the war, the regular MSMS Golf Tournament for 1942 has been cancelled.

* * *

THE 116 EXHIBITS WILL REMAIN OPEN FOR YOUR INSPECTION UNTIL 6:00 P.M. ON WEDNESDAY AND THURSDAY; UNTIL 3:00 P.M. ON FRIDAY



DEMONSTRATING THE KENNY METHOD

Sister Elizabeth Kenny of Australia will speak on Poliomyelitis at the MSMS annual meetling, Friday, September 25.

Advances in the treatment of Poliomyelitis by means of early physical therapy will be shown daily in the scientific exhibit of the National Foundation on Infantile Paralysis, Inc. (Booth No. I).

AT THE POSTGRADUATE CONFERENCE ON WAR MEDICINE

Seven General Assemblies, Wednesday, Thursday, Friday, September 23, 24, 25.

The Eight Section Meetings will be held on Friday morning only, September 25. Luncheons will be sponsored by the Sections on

1. Dermatology and Syphilology
2. Obstetrics and Gynecology
3. Ophthalomology and Otolaryngology.

* * *

Public Meeting—The evening assembly of Wednesday, September 23—President's Night—will be open to the public. Invite your patients and other friends to this interesting meeting. The program (complete on page 773) is highlighted by:

8:00 p.m. President's Address
Induction of President-elect
9:00 p.m. Biddle Oration (Col. Geo. F. Lull, M.C.)
10:00 p.m. Entertainment and dancing.

* * *

The Committee Organization Luncheon, a meeting of MSMS committee chairmen appointed by President-elect H. H. Cummings, M.D., to serve during the year 1942-43, wil be held on Wednesday, September 23, 12:30 p.m. in the Furniture Assembly Room, Pantlind Hotel.

* * *

The Michigan Branch of the American Medical Women's Association announces the following program for its State Meeting:

September 22

12:30 p.m.—Luncheon, Pantlind Hotel
6:30 p.m.—Dinner and Election of Officers, Pantlind Hotel
Topic: "War Service of American Women's Hospitals," Helena T. Ratterman, M.D., Cincinnati, Ohio.

Mildred C. Williams, M.D., Detroit, is president of the Michigan Branch, American Medical Women's Association.

The Michigan Branch of the American Academy of Pediatrics will hold a dinner in the Pantlind Hotel, Thursday evening, September 24, 6:00 p.m. Frank VanSchoick, M.D., 419 W. High Street, Jackson, is in charge of arrangements.

You Are Cordially Invited
to Visit the
Michigan State Medical Society
HOSPITALITY BOOTH
Exhibit Hall—Civic Auditorium
Stop and Chat with Your State Scciety Officers

Medical Secretaries' Meeting Cancelled—The annual Symposium on "The Business Side of Medicine," usually held in connection with the MSMS annual meeting every year, will not be held in 1942, due to the difficulty in obtaining outstanding speakers for the program during the war.

* * *

Register at Each Booth—There is something NEW for you in the interesting and large exhibit (116 booths). Stop and show your appreciation of the exhibitors' support in making the Convention possible.

THE WOMAN'S AUXILIARY
to the Michigan State Medical Society
Presents an Attractive Program to which Every Physician's Wife is cordially invited.

SCIENTIFIC EXHIBITS

I The National Foundation for Infantile Paralysis, New York, N. Y.
"Progress Against Infantile Paralysis"

This exhibit will present some of the recent advances in the identification of the virus in epidemiology and in treatment by means of early physical therapy.

II Michigan Allergy Society
"Hay Fever, Asthma, and Allied Disease"

An exhibit featuring ordinary plants and pollens causing rose fever and hay fever. Also exhibits of various types of dust responsible for year-round asthma, naso-motor-rhinitis, and chronic sinusitis. Also a demonstration of air-borne particles from insects as a cause of hay fever and asthma. Animals naturally sensitized to ragweed pollin, demonstrating typical asthma (human type) on exposure to these pollens, will be displayed.

III American Medical Association, Chicago, Ill.
"Amputations"

Exhibit displaying the work of the consultants on artificial limbs of the Council on Physical Therapy. Preferred sites of election for amputations, the best stump for the most useful prosthesis and acceptable methods for treatment of the stump are considered. Manikins are displayed illustrating satisfactory stumps. A pamphlet will be distributed, dealing with the important aspects of the exhibits.

IV Cardiac Club of Detroit
"Studies in Heart Disease"

This exhibit will be composed of charts summarizing clinical investigations on cardiac problems, several case reports, and a series of colored lantern slides illustrating pathological features of various types of heart disease.

V Wayne University College of Medicine, Detroit
"Epidemiology of Tularemia"

The exhibit is intended to show the incidence and distribution of tularemia in Michigan, to depict the natural hosts and vectors of tularemia and the most common methods by which man contracts the disease.

VI Highland Park General Hospital, Highland Park, Michigan
"Peptic Ulcer Therapy with an Anterior Pituitary Preparation"

The discovery and development of the concept of an anterior pituitary splanchnotropic preparation is illustrated by the results of experimental work in pigeons. The application of this principle to the prevention of experimental ulcer in dogs is delineated.

Clinical evidence is presented of the therapeutic efficacy of the anterior pituitary splanchnotropic factor in the prevention and treatment of peptic ulcer in the human.

VII-IX Chicago Municipal Sanitarium, and Michigan Tuberculosis Association
"Pulmonary Tuberculosis Differential Diagnosis and Treatment"

An unusual display of material gathered from the exceptionally wide experience of the Chicago Municipal Sanitarium through whose courtesy this exhibit is made possible.

VIII U. S. Citizens' Defense Corps of Michigan
"Emergency Medical Service"

The exhibit explains the organization of the Emergency Medical Service of the U. S. Citizens' Defense Corps of Michigan and includes information on gas protection and the organization of the Nurses' Aides Corps and other auxiliary units.

X Selective Service, Michigan State Headquarters, Lansing
"Selective Service"

This exhibit will indicate, through the use of charts and diagrams, some of the physical reasons for rejecting men for military service. Questions will be answered and regulations will be explained to all physicians, including those who are aiding in the matter of physical examinations of Selectees.

XI Michigan Department of Health
"The Nutrition Yardstick Translated into Daily Food Needs"

This graphic way of showing how nutrition needs can be met with ordinary servings of food includes an attractive display of colored models of food with accompanying wall panels listing vitamins, minerals and protein.

XII Medical and Surgical Relief Committee of America, New York, N. Y.
"Emergency Medical Field Sets"

The Medical and Surgical Relief Committee of America, an organization engaged in the collection of surplus medical and surgical supplies for redistribution to evacuation hospitals and civilian defense posts, will display and distribute literature concerning its nationwide activities. Funds raised through the sale of emblems are devoted to the purchase of Emergency Medical Field Sets, completely equipped with medical and surgical supplies. They are constructed so that they can be readily picked up and transported anywhere they are needed by nurses and doctors. One of the sets will be on display.

XIII Michigan Department of Health
"4x5 X-ray Film Exhibit"

The exhibit will demonstrate the quality of the single 4x5 x-ray film, used in routine examinations of selective groups for tuberculosis case-finding. It will include abnormal findings on 4x5 films as compared with subsequent 14x17 films. Several hundred 4x5 films classified as normal or the various types of abnormalities will be available for viewing.

XIV Wm. J. Seymour Hospital, Eloise
"Clinical Electrocardiography"

This exhibit will show the fundamental principles of the electro-physiology of the heart and its practical application in various diseases of the heart and circulation. Graphic records of heart sounds, electrocardiograms and pulse tracings and their relationship in health and disease will be presented and electrocardiograph which projects the tracings on a fluorescent screen will be displayed. Serial electrocardiograms in standard limb leads supplemented by precordial and esophageal leads will be shown to emphasize their value in clinical medicine.

XV Woman's Field Army of American Society for Control of Cancer, Michigan Department of Health, and MSMS Cancer Control Committee
"Cancer Control"

The exhibit consists of latex cancer models, a set of six diorams showing development in treatment of malignant diseases since early history, and a set of statistical and educational charts.

XVI Michigan Society of Anaesthetists
"Anaesthesia"

This exhibit will consist of demonstrations of various types of anaesthetics.

XVII-XIX Michigan Department of Health, and MSMS Syphilis Control Committee
"Management of Venereal Disease"

1. A sound movie in color consisting of three parts will be shown. This movie has just recently been released by the United States Public Health Service. Part I demonstrates the diagnosis of early syphilis, including primary and secondary syphilis. Part II deals with the diagnosis of latent and late syphilis. Part III discusses the treatment of syphilis. This moving picture is very well done, shows new clinical examples, and summarizes in concise form the main essentials of both the diagnosis and treatment of syphilis.

The movie will be shown Tuesday, September 22, 4:30 p.m.; Wednesday, September 23, 10:30 a.m. and 2:30 p.m.; Thursday, September 24, 10:30 a.m. and 2:30 p.m.; and at other times as occasion demands.

2. A demonstration will be presented of delayed darkfield showing spirocheta pallida obtained from darkfield positive cases of primary and secondary syphilis. Preparation of such specimens will be discussed.

3. The procedures indicated in the diagnosis of gonorrhea showing methylene blue and Gram stains as well as gonorrhea cultures will be demonstrated. Demonstrators in this exhibit will be available to discuss newer forms of therapy including intensive treatment of early syphilis.

4. Transparencies in color and Kodachrome of interesting cases of early and late syphilis will be exhibited.

WOMAN'S AUXILIARY

MRS. W. J. BUTLER
President

STATE CONVENTION COMMITTEE

Mrs. Carl F. Snapp, Chairman
Mrs. R. H. Denham, Co-chairman
Mrs. Wm. E. Hyland, Banquet and Luncheons
Mrs. T. C. Irwin, Flowers
Mrs. R. S. Breakey, Inter-county Committee
Mrs. L. M. McKinlay, Hospitality
Mrs. Wm. D. Lyman, Finance
Mrs. V. F. Kling, Printing
Mrs. A. V. Wenger, Publicity
Mrs. J. D. Miller, Registration
Mrs. Fred J. Melges, State Exhibit
Mrs. Wm. R. Rodgers, Nutrition Exhibit

MRS. CARL F. SNAPP
Convention Chairman

STATE OFFICERS, 1941-42

Mrs. William J. Butler, Grand Rapids.....President
Mrs. G. L. Willoughby, Flint.....President-elect
Mrs. John J. Walch, Escanaba.....Vice President
Mrs. Henry J. Pyle, Grand Rapids.....Secretary
Mrs. H. L. French, Lansing.....Treasurer
Mrs. Roger V. Walker, Detroit.....Past President
Mrs. Guy L. Kiefer, East Lansing.....
Honorary President

TO ALL WOMEN'S MEDICAL AUXILIARIES IN MICHIGAN.

Dear Members:

As you know the State Medical Meeting is to be held in Grand Rapids again this year, September 21 to 24, and a very interesting and attractive program has been provided. May I sincerely urge that each and every one of you make an earnest effort to attend.

This year more than at any other time since our auxiliary was founded, we need your whole-hearted support due to the absence from the state of so many of our members who have accompanied their husbands to various stations with the Armed Forces. The responsibility for the success of our organization has been left upon the shoulders of those who remain at home, and it is up to us to carry on and meet the problems facing the doctors and our own communities during these strenuous days, and it is a meeting like this that will give us the inspiration and help that we need.

So in happy anticipation of seeing all of you in September, I am

Very sincerely yours,
ALICE NOYES SNAPP,
Chairman, Convention Committee.

PROGRAM

Monday, September 21, 1942

9:00 A.M. Registration—Pantlind Hotel
12:30 P.M. Luncheon—Past Presidents and Secretaries of State Auxiliary
6:30 P.M. Dinner for wives of delegates and other members of MSMS. Individual charge

Tuesday, September 22, 1942

9:00 A.M. Registration—Pantlind Hotel
1:00 P.M. Luncheon—Pre-convention Board Meeting—Pantlind Hotel
1941-42 Board Members and County Presidents

4:00 P.M. Business Meeting for State Chairman
Presiding—President-elect, Mrs. G. L. Willoughby

6:30 P.M. Reception for National President, Past Presidents of Michigan Auxiliary and Board Members—Pantlind Hotel
Chairman, Mrs. A. V. Wenger

7:00 P.M. Banquet—Pantlind Hotel
Presiding—Mrs. William J. Butler
Chairman—Mrs. Carl F. Snapp
Introduction of Past Presidents
Address—Mrs. Frank Haggard, San Antonio, Texas.
National President, Woman's Auxiliary to A.M.A.
Program

Wednesday, September 23, 1942

8:00 A.M. Registration—Pantlind Hotel
9:00 A.M. Formal Opening of Convention—Pantlind Hotel
Presiding—Mrs. William J. Butler, Grand Rapids
Address of Welcome—Mrs. Wm. A. Hyland, Grand Rapids
Response—Mrs. John J. Walch, Escanaba
In Memoriam—Mrs. Milton A. Darling, Detroit
Reading of the Minutes—Mrs. Henry J. Pyle, Grand Rapids
Report of treasurer—Mrs. H. L. French, Lansing
Auditor's report—Mrs. H. L. French
Report—Convention chairman, Mrs. Carl F. Snapp, Grand Rapids
Report of Special Committee and President's Message—Mrs. William J. Butler
Reports of Standing Committees
Reports of County Presidents
Courtesy Resolutions—Mrs. S. L. DeWitt, Grand Hoven
Report of Committee on Nominations—Mrs. Elmer L. Whitney, Detroit
Election and Installation of Officers
Presentation of Pin
Address—Mrs. G. L. Willoughby, Flint
Adjournment

1:00 P.M. Luncheon—Pantlind Hotel
Presiding—Mrs. Carl F. Snapp
Program

4:00 P.M. Post-Convention Board Meeting
Presiding—Mrs. G. L. Willoughby,
1942-43 Board and County Presidents

President's Night, Michigan State Medical Society—Pantlind Hotel—For MSMS members, their wives and guests.

WEDNESDAY MORNING
September 23, 1942

First General Assembly

Black and Silver Ballroom—Civic Auditorium
A. S. BRUNK, M.D., Presiding

L. FERNALD FOSTER, M.D., and H. M. POLLARD, M.D., Secretaries

A. M.
9:30 "Pelvic Tumors Complicating Pregnancy, Labor and Puerperium"

HARVEY B. MATTHEWS, M.D., Brooklyn, New York

HARVEY B. MATTHEWS

B.Sc., University of Texas, 1905; M.D., Columbia University, College of Physicians and Surgeons, 1909. Clinical Professor of Obstetrics and Gynecology, Long Island College of Medicine. Attending Obstetrician and Gynecologist, Long Island College and the Methodist Hospitals of Brooklyn. Fellow of American College of Surgeons, American Gynecological Society; Diplomate of American Board of Obstetrics and Gynecology; Fellow of American Association of Obstetricians, Gynecologists and Abdominal Surgeons.

Many types of pelvic tumors have been reported complicating pregnancy, labor and puerperium. In this discussion only the benign uterine and ovarian, solid or cystic tumors will be considered. Fortunately, such tumors are less common during the most prolific stage of childbearing age and they are relatively rare at any stage of reproductive life. A clear conception of the size, location and condition of the tumor is highly desirable. Under given conditions, certain pathological changes may take place within the tumor which may lead to further complications. Accurate diagnosis is most desirable. Likewise what to do, how and when to do it are most important desiderata. Generally speaking, conservative management is indicated. However, operative treatment, both as regards tumor and/or the labor calls for sane and prompt decisions. Likewise certain complications demand operative interference during pregnancy and/or the puerperium. Report of small series of cases.

TEN DISCUSSION CONFERENCES

These quiz periods will be held Wednesday and Thursday, September 23 and 24, at 3:30 to 4:30 p.m. An opportunity to ask questions concerning the presentation of the guest-essayists, or to discuss one of your interesting cases with them, will be provided.

Discussion Conferences on General Practice, Surgery, Syphilology, Obstetrics and Gynecology, and on Chemotherapy will be held Wednesday afternoon.

Discussion Conferences on General Practice, Ophthal-otolaryngology, Medicine, Pediatrics, and on Radiology, Pathology and Anesthesia, will be held Thursday afternoon.

Please submit your questions, on forms printed in the Program to the Secretary of the General Assembly immediately after the termination of the lecture, in order that the guest essayist may have time to consider same before the quiz period.

10:00 "Cancer of the Rectum"

FRED W. RANKIN, M.D., Lexington, Kentucky

FRED W. RANKIN

B.A., Davidson College, North Carolina, 1905; M.D., University of Maryland, 1909; M.A., St. John's College, Baltimore, 1915; Sc.D., Davidson College, 1938; Sc.D., University of Maryland, 1939; Sc.D. University of Kentucky, 1942. Chief Consulting Surgeon to the Surgeon General, United States Army; clinical professor of surgery, University of Louisville; formerly associate professor of surgery, University of Minnesota Medical School, Mayo Foundation; surgeon to Mayo Clinic; president of American Medical Association, 1942; Colonel, Medical Reserve Corps, U. S. Army; member of Phi Beta Kappa, Beta Theta Pi, Sigma Xi, and Phi Chi.

Rectal cancer is one of the most frequent lesions of the gastrointestinal tract and one which can routinely be diagnosed in every case. It is unnecessary to repeat platitudes about the symptomatology and ease of recognition of this lesion, but actually if a simple digital examination and a protoscopic examination were indulged in when there were symptoms of lower gastrointestinal tract disease, the diagnosis would be made in every instance and treatment instituted at a much earlier time in the existence of the disease.

For practical purposes one may say that the choice of treatment, except for operative risk, is radical surgery. This, of course, is for adenocarcinomas of the rectum and not for epitheliomas of the anal canal. There is no evidence today to prove that radiation or other methods of destruction by electrical apparatus cures rectal cancer. Radical removal is the hope of these cases.

A series of one-stage combined abdominoperineal resections is reported and the mortality figures and morbidity and survival rates are discussed. The operation is a formidable one which may be consummated by an expert surgeon with reasonable death rates. It is distinctly not an operation for the casual operator.

10:30 Intermission to View Exhibits

11:00 "Venereal Disease in the Armed Forces"

JOSEPH EARLE MOORE, M.D., Baltimore, Maryland

JOSEPH EARLE MOORE

A.B., University of Kansas, 1914; M.D., Johns Hopkins, 1916. Assistant in medicine, instructor and associate Johns Hopkins 1916-23; assistant visiting physician Johns Hopkins Hospital 1923-29; Physician in charge Syphilis Division of Medical Clinic, Johns Hopkins Hospital since 1929; Associate Professor Johns Hopkins University; Special Consultant, U. S. Public Health Service; Consultant Maryland State Department of Health; Chairman, Subcommittee on Venereal Diseases, National Research Council; Adjunct Professor of Public Health Administration, Johns Hopkins School of Hygiene and Public Health. Served as 1st Lt. and Capt. Med. Corps, U.S.A. with A.E.F. 1917-1919; Maj. Med. Res. Corps, 1920-28. Author: The Modern Treatment of Syphilis, 1st ed. 1933; 2nd ed. 1941. Editor, Amer. Jour. Syphilis., Gonor. & Ven. Dis., since 1935.

This paper discusses the military importance of the venereal diseases; presents data as to their past and current incidence in the Armed Forces; and discusses the control measures now in use by the United States Army and Navy.

WEDNESDAY MORNING

September 23, 1942

11:30 "Management of the Barren Marriage"

GEORGE H. GARDNER, M.D., Chicago, Illinois

GEORGE H. GARDNER

A.B., Wittenberg College, 1917; M.D., Johns Hopkins University School of Medicine, 1921. Associate Professor of Gynecology, Northwestern University School of Medicine; Attending Gynecologist to Passavant, and Wesley Memorial Hospitals. F.A.C.S.; Diplomate American Board of Obstetrics and Gynecology.

Women tend to assume full responsibility for their inability to become pregnant and most scientific papers dealing with this problem have been entitled "Female Sterility." However, the term "Barren Marriages" is more appropriate because it emphasizes the mutual responsibility of both the husband and the wife, in their failure to have children. The majority of barren marriages result, not from a single cause in one spouse, but from a multiplicity of factors in both; some may seem trivial but, added together, they are sufficient to prevent conception. Successful management, therefore, depends on adequate examination of both the husband and the wife, followed by systematic elimination of every contributing factor from each of them.

This presentation, first, enumerates the essentials of a diagnostic study which will reveal most factors that contribute to a couple's infertility. It then deals with the accepted present-day treatment for the contributing causes which occur in women.

A. M.

12:00 "Prolonged Labor"

PHILIP F. WILLIAMS, M.D., Philadelphia, Pennsylvania

PHILIP F. WILLIAMS

M.D., School of Medicine, University of Pennsylvania; 1909. Professor of Clinical Obstetrics and Gynecology, University of Pennsylvania; Gynecologist and Obstetrician, Philadelphia General Hospital and Jewish Hospital; Obstetrician, Presbyterian Hospital.

The occurrence of prolonged labor connotes some abnormal condition in either powers, passages or passenger. The incidence of, and etiological factors in prolonged labor in three hospitals have been analyzed. The incidence varies. The factors have been analyzed. Treatment has been reviewed. The circumstances surrounding 206 maternal deaths associated with prolonged labor occurring in Philadelphia in the past eleven years have been analyzed. Observations have been on the causes of death and method of handling these 206 cases.

12:30 End of First General Assembly

12:30 Luncheon—View Exhibits

VIEW THE EXTRAORDINARY EXHIBIT DAILY

WEDNESDAY AFTERNOON

September 23, 1942

Second General Assembly

Black and Silver Ballroom—Civic Auditorium

P. A. RILEY, M.D., Presiding

L. FERNALD FOSTER, M.D., and R. S. SIDDALL, M.D., Secretaries

SYMPOSIUM ON CHEMOTHERAPY

P. M.

1:30 Sulfonamide Therapy in General Practice"

HARRISON F. FLIPPIN, M.D., Philadelphia, Pennsylvania

HARRISON F. FLIPPIN

M.D., University of Virginia School of Medicine, 1933. Intern, Hospital of the University of Pennsylvania, 1933-35, Chief Medical Resident, 1935-36. Chairman, Committee of Pneumonia Research, Philadelphia General Hospital. Chairman, Committee for the Control of Pneumonia, Medical Society of Pennsylvania. Associate in Medicine, School of Medicine, University of Pennsylvania. Fellow of American College of Physicians.

During the past seven years, the value of administering the sulfonamides in the prevention and treatment of a variety of infections has been recognized. To obtain maximum success with these drugs it is necessary to have an understanding of certain principles inherent in this type of chemotherapy. In this discussion emphasis will be placed upon presentation of the following factors responsible for the successful use of sulfanilamide and its derivatives in general practice.

1. Proper Selection of Drug
2. Early Treatment
3. Adequate Dosage
4. Detection of Drug Toxicity
5. Employment of Other Therapeutic Measures

THURSDAY EVENING

September 24, 1942

Sixth General Assembly

(For MSMS Members Only)
Ballroom, Pantlind Hotel

G. HOWARD SOUTHWICK, M.D., Presiding
L. FERNALD FOSTER, M.D., Secretary

SMOKER
(Stag)

Admission by Card Only
Nine O'Clock
Refreshments
Music and Entertainment
Host: The Michigan State Medical Society

WEDNESDAY AFTERNOON
September 23, 1942

P. M.
2:00 "Modern Management of Infections in the Urinary Tract"

RUSSELL D. HERROLD, M.D., Chicago, Illinois

RUSSELL D. HERROLD

S.B., Drake University, 1911; M.D., Rush Medical College, 1915. Associate Professor of Surgery (Urology), College of Medicine, University of Illinois, since 1935; member of staff, Research and Educational Hospitals. Member of Subcommittee on Venereal Diseases of the National Research Council. Served in World War I as Captain, M.C. Member of numerous scientific and medical organizations.

A discussion will be given of sulfathiazole and sulfadiazine in the treatment of gonococcic infections, including optimum dosage, toxic manifestations, and problems connected with failures. Steps in the determination of cure are outlined. Important phases of the diagnosis and treatment of nonspecific prostatitis are summarized. The indications and contraindications for chemotherapy in infections of the bladder and upper urinary tract are reviewed. The administration of the sulfonamides for the prevention of instrumental reactions is emphasized. Lantern slides will be presented summarizing the important points in the various subdivisions of the subject.

2:30 Intermission to View Exhibits

3:00 Title to Come

JOHN A. TOOMEY, M.D., Cleveland, Ohio

JOHN A. TOOMEY

A.B., John Carroll University, 1910; A.M., 1912; LL.B. Cleveland Law School, 1913; M.D., Western Reserve University, 1919. Professor, Clinical Pediatrics and Contagious Diseases, Western Reserve University; Physician-in-Charge, Division of Contagious Diseases, City Hospital; Associate Pediatrist, University Hospitals. Fellow, American College of Physicians, American Academy of Pediatrics, American Public Health Association and member of numerous scientific organizations.

A consideration of the subject of chemotherapy from the standpoint of the acute infectious diseases of childhood; the results of chemotherapy in the various types of meningitis, poliomyelitis, sinusitis, complications of measles, scarlet fever, acute pyelitis, gastro-intestinal diseases, pneumonia, acute bacterial endocarditis, streptococcus sore throat, ordinary colds, etc.; and the type of dye to be used will be made. In doing this, it will be pointed out that sulfathiazole and sulfadiazine may be much more dangerous drugs than is ordinarily thought and that while the earlier drugs have greater objective symptoms, the newer ones produce complications that are hidden. These come on suddenly and are more serious than those following the administration of the earlier dyes. Particular reference will be given to the role of the kidney in the use of dyes.

3:30 Discussion Conferences with Guest Essayists
(See Page 774.)

5:00 End of Second General Assembly

WEDNESDAY EVENING
September 23, 1942

Third General Assembly

Public Meeting

Ballroom, Pantlind Hotel

HENRY R. CARSTENS, M.D., Presiding
L. FERNALD FOSTER, M.D., Secretary

PRESIDENT'S NIGHT

8:30 P. M.

1. **Call to order by President Henry R. Carstens, M.D., Detroit.**
2. **Announcements and Reports of the House of Delegates, by Secretary L. Fernald Foster, M.D., Bay City.**
3. **President's Annual Address—Henry R. Carstens, M.D.**
4. **Induction of Howard H. Cummings, M.D., Ann Arbor, into office as President of the Michigan State Medical Society. Response.**
5. **Presentation of Scroll and Past-President's Key to Dr. Carstens by A. S. Brunk, M.D., Chairman of The Council.**
6. **Introduction of the President-Elect and other newly elected officers of the State Society.**

9:00 P. M.

7. **The Andrew P. Biddle Oration "Resume of Military Medical Personnel Problems of the Army."**

COL. GEO. F. LULL, M.C., Washington, D. C.

COL. GEO. F. LULL

M.D., Jefferson Medical College, 1909; C.P.H., Harvard Technology School of Public Health, 1920; Dr.P.H., University of Pennsylvania, 1921; Chief, Personnel Service, Surgeon General's Office, U. S. Army, Washington, D. C.

8. **Presentation of Biddle Oration Scroll.**

10:00 P. M.
Entertainment and Dancing

End of Third General Assembly

TOMORROW YOU'LL FIND SOMETHING NEW IN THE SCIENTIFIC AND TECHNICAL EXHIBIT

Ten Discussion Conferences (Quiz Periods)

Ten discussion conferences each with a different chairman—leaders of outstanding ability in their field—will be held Wednesday and Thursday afternoons. Here the doctor will have a chance to ask questions of the lecturers he has heard and to hear discussed medical matters of value to him in his daily practice.

Wednesday, September 23—3:30 to 4:30 p.m.

GENERAL PRACTICE	SURGERY	SYPHILOLOGY	OBSTETRICS AND GYNECOLOGY	CHEMOTHERAPY
Red Room, Civic Auditorium	Ballroom, Pantlind	Room F, Civic Auditorium	Colonial Room, Pantlind Hotel	Black and Silver Ballroom Civic Auditorium
Leader: **C. E. Umphrey, M.D.** Detroit	Leader: **F. A. Coller, M.D.** Ann Arbor	Leader: **U. J. Wile, M.D.** Ann Arbor	Leader: **H. H. Cummings, M.D.** Ann Arbor	Leader: **R. L. Novy, M.D.** Detroit
Guest Conferee: **H. B. Matthews, M.D.** Brooklyn, N. Y.	Guest Conferee: **F. W. Rankin, M.D.** Lexington, Ky., and Washington, D. C.	Guest Conferee: **J. Earle Moore, M.D.** Baltimore, Md.	Guest Conferees: **P. F. Williams, M.D.** Philadelphia **G. H. Gardner, M.D.** Chicago	Guest Conferees: **H. F. Flippin, M.D.** Philadelphia **R. D. Herrold, M.D.** Chicago **J. A. Toomey, M.D.** Cleveland

Thursday, September 24—3:30 to 4:30 p.m.

GENERAL PRACTICE	OPHTHALMOLOGY	MEDICINE	PEDIATRICS	RADIOLOGY, PATHOLOGY AND ANESTHESIA
Red Room, Civic Auditorium	Room F, Civic Auditorium	Black and Silver Ballroom Civic Auditorium	Ballroom, Pantlind	Colonial Room, Pantlind
Leader: **M. G. Becker, M.D.** Edmore	Leader: **Parker Heath, M.D.** Detroit	Leader: **C. C. Sturgis, M.D.** Ann Arbor	Leader: **C. F. McKhann, M.D.** Ann Arbor	Leader: **Lawrence Reynolds, M.D.** Detroit
Guest Conferees: **E. L. Sevringhaus, M.D.** Madison, Wis. **H. C. Guess, M.D.** Buffalo, N. Y.	Guest Conferees: **Meyer Weiner, M.D.** St. Louis **P. A. Chandler, M.D.** Boston	Guest Conferees: **R. W. Scott, M.D.** Cleveland **J. B. Youmans, M.D.** Nashville, Tenn. **J. Burns Amberson, Jr., M.D.** New York City	Guest Conferees: **A. H. Parmelee, M.D.** Chicago **Bronson Crothers, M.D.** Boston **C. G. Grulee, M.D.** Evanston, Ill.	Guest Conferees: **E. T. Bell, M.D.** Minneapolis **P. M. Wood, M.D.** New York City **E. H. Skinner, M.D.** Kansas City

All Members Are Invited to Join in These QUIZ PERIODS With the Guest Essayists

THURSDAY MORNING
September 24, 1942

Fourth General Assembly

Black and Silver Ballroom—Civic Auditorium

L. J. JOHNSON, M.D., Presiding
L. FERNALD FOSTER, M.D., and FRANK STILES, M.D., Secretaries

9:30 "Preventive Aspects of Maternal Mortality"

PHILIP F. WILLIAMS, M.D., Philadelphia, Pennsylvania

PHILIP F. WILLIAMS

M.D., School of Medicine, University of Pennsylvania, 1909. Professor of Clinical Obstetrics and Gynecology, University of Pennsylvania; Gynecologist and Obstetrician, Philadelphia General Hospital and Jewish Hospital; Obstetrician, Presbyterian Hospital.

An outstanding feature of practically all studies on maternal mortality is the high proportion of deaths regarded as avoidable. Responsibility for controlling such deaths have been assigned to patient, physician and the community. In the Philadelphia study, continuous since 1931, seven factors have been used in the final analysis of the cases: (1) Lack of prenatal care; (2) negligence of patient or her friends; (3) induction of abortion; (4) error in judgment; (5) error in technique; (6) intercurrent disease; (7) unavoidable disaster.

Each factor will be discussed from the standpoint of controllability.

ACKNOWLEDGMENT. The Michigan Department of Health is sincerely thanked for its sponsorship of this lecture.

10:00 "Clinical Aspects of Arteriosclerosis"

ROY W. SCOTT, M.D., Cleveland, Ohio

ROY W. SCOTT

M.D., Western Reserve University School of Medicine, 1913. Professor of Clinical Medicine, Western Reserve University School of Medicine; Diplomate of American Board of Internal Medicine; Fellow American College of Physicians; Physician-in-Chief, Cleveland City Hospital.

The major medical problem facing the physician is that of human arteriosclerosis which today is killing more people than any other disease and there is every reason to believe that it will be even a more serious problem for the doctor of tomorrow. All the major therapeutic advances of the past generation are prolonging life and yearly adding thousands of recruits to the army of the aged which is destined to succumb to those two affections characteristic of the later decades of life, namely, vascular decay and cancer. The clinical pictures exhibited by patients dealing with vascular disease in three vital beds—heart, brain and kidney—will be presented with some consideration of the problem of hypertension.

10:30 Intermission to View Exhibits

11:00 "The Nature and Experimental Treatment of Hypertension"

IRVINE H. PAGE, M.D., Indianapolis, Indiana

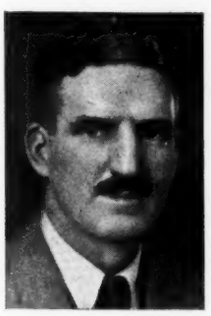
IRVINE H. PAGE

A.B., Chemistry, Cornell University, 1921; M.D., Cornell University, 1926; Presbyterian Hospital, New York, 1926-28; Kaiser Wilhelm Institute, 1931-37; Associate Member of Rockefeller Institute, 1928-31; Director of Clinical Research, Lilly Laboratory, Indianapolis City Hospital, 1937 to date; author of "Chemistry of the Brain."

The evidence in favor of hypertension being due to chemical substances liberated from the kidney will be given. It will be shown that the substance named angiotonin when injected into animals and human beings quite closely reproduces the physiologic changes which are known to occur in hypertension produced experimentally in animals and spontaneously occurring in essential hypertension in man. Treatment of the disease in man will be discussed from the surgical and medical point of view. An attempt will be made to indicate that orderly progress is being made in the understanding of this disease which is killing more people than any other.

11:30 "Hemorrhagic Disease of the Newborn"

ARTHUR HAWLEY PARMELEE, M.D., Oak Park, Illinois



A. H. PARMELEE

A.B., Beloit College, 1905; M.D., Rush Medical College, 1911. Postgraduate Study in Vienna, 1924-1925 and 1931-1932. Professor of Pediatrics, University of Illinois (Rush). Attending Pediatrician, Presbyterian Hospital; Attending Pediatrician, Cook County Hospital, Member, American Pediatric Society. American Academy of Pediatrics, Board of Directors Infant Welfare Society of Chicago.

The new interest aroused in this subject by the discovery of Vitamin K as essential for the production of prothrombin makes it seem wise to review the facts in order not to be led astray by premature conclusions.

First, it is necessary to define Hemorrhagic Disease of the Newborn so that we may know what is to be included in any statistical review. If petechial hemorrhage into the skin and mucous membranes, microscopic blood in the urine, minimal bleeding from the navel, coffee-ground vomitus in the first day of life, and cephalhematoma among many other benign symptoms are to be considered manifestations of hemorrhagic disease, the incidence will be very high. But if we should include only those cases which have a definitely prolonged coagulation time or bleeding time as proposed by some, the incidence will be very low.

Only a small number of the cases reported as cured can rightfully be accredited to the treatment employed if the list includes the usual cases of mild bleeding which tend to recover spontaneously. Are we justified in using the term Hypoprothrombinemia of the Newborn as synonymous with Hemorrhagic Disease of the Newborn?

If we review the factors concerned in the coagulation of the blood, we can see that there are many besides Prothrombin and Vitamin K to be considered. The case for hypoprothrombinemia is a strong one but there remain several questions to be satisfactorily answered before there can be complete acceptance of this as the chief, much less the only cause of Hemorrhagic Disease of the Newborn.

12:00 "Diagnostic and Therapeutic Problems of Obesity"

ELMER L. SEVRINGHAUS, M.D., Madison, Wisconsin

ELMER L. SEVRINGHAUS

B.A., University of Wisconsin, 1916; M.A., Wisconsin, 1918; M.D., Harvard, 1921. Professor of Medicine since 1938; Physician to Wisconsin General Hospital; Past President Association for the Study of Internal Secretions; Member of numerous national medical societies; author of "Endocrine Therapy in General Practice"; co-author of "Vitamin Therapy in General Practice"; Editor of the Yearbook of Endocrinology.

The synopsis of the paper will be as follows: Obesity is always caused by disproportion between the intake and expenditure of calories. Increased intake may be voluntary and conscious or not recognized because of several features. Sometimes there is excessive hunger due to hypoglycemia, habitual overfilling of the stomach, addition to concentrated foods, or social pressures for eating. Decreased expenditure of calories may be associated with physical handicap, hypothyroidism, psychological or economic handicaps at activity. There are certainly constitutional and genetic types of obesity. It seems impossible to make any distinct correlation with endocrine factors in the direct etiology, however. Clinical types will be illustrated and the therapeutic program on dietary restriction adaptable for different patients will be explained.

12:30 Luncheon—View Exhibits

THURSDAY AFTERNOON
September 24, 1942

Fifth General Assembly

Black and Silver Ballroom—Civic Auditorium

R. J. HUBBELL, M.D., Presiding
L. FERNALD FOSTER, M.D., and H. B. ZEMMER, M.D., Secretaries

P. M.

1:30 "Some Answers to Questions on Ophthalmology of the General Practitioners by Their Patients"

MEYER WIENER, M.D., St. Louis, Missouri

MEYER WIENER

M.D., Missouri Medical College, 1896; graduate study at University of Berlin, University of Heidelberg and University of Paris from 1897 to 1899. Professor of Clinical Ophthalomology, Washington University School of Medicine since 1910; Ophthalmic Surgeon, Missouri Pacific Hospital; also engaged in research and writing. Lt. Colonel in Medical Corps, U. S. Army, 1918; Diplomate of American Board of Ophthalmology; Fellow American College of Surgeons and member of numerous other medical and scientific organizations; Honorary Consultant to the Medical Department of the United States Navy.

Doctor! Will my baby's eyes stay blue? Are brown eyes stronger than blue, or grey? Why are my baby's pupils so tiny? Or my little girl's so large? My baby sometimes looks cross-eyed or wall-eyed. Will it stay that way, or grow worse, or better? At what stage or age should a cross-eyed child wear glasses; and when should it be operated? Should drops be put in all newborn babies' eyes? Is light harmful to the eyes of a child with active measles? And will it harm if he uses his eyes for close work? What kind of colored glasses shall I wear at the seashore? These and many more will be answered.

2:00 "Nephrosis and Nephritis"

E. T. BELL, M.D., Minneapolis, Minnesota

E. T. BELL

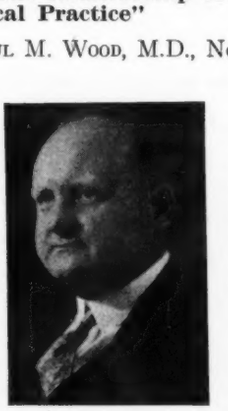
Professor and Head of the Department of Pathology, University of Minnesota. He has interested himself over a long period of time in the pathology of diseases of the kidney, particularly glomerulonephritis and hypertension kidney. He has also written a number of papers in other fields of pathology and has been interested for many years in surgical pathology. He is co-author and editor of Bell's "Textbook of Pathology."

Nephritis is best classified on an anatomical basis as glomerular, tubular, interstitial and vascular. Glomerular diseases are of two types, viz., obstruction of the glomerular capillaries (proliferative), and hyperpermeability of the capillary wall (membranous glomerulonephritis). This latter type is called lipoid nephrosis. Proliferation of the capillary endothelium obstructs the blood flow through the glomeruli, decreases the glomerular filtrate and causes uremia. In lipoid nephrosis the blood proteins leak into the urine, decreasing the plasma proteins and causing edema. Albuminuria and edema are evidences of glomerular not tubular disease. The conception of a nephritic or nephrotic "Einschlag" is incorrect.

2:30 Intermission to View Exhibits

3:00 "The Relationship of Anesthesiology to Medical Practice"

PAUL M. WOOD, M.D., New York, New York



PAUL M. WOOD

B.S., Columbia College, 1917; M.D., College of Physicians and Surgeons, 1922. Assistant Clinical Professor of Anesthesia, New York Medical College; Consulting and Attending Anesthetist to several New York hospitals; Fellow American Society of Anesthetists; Diplomate and Secretary-Treasurer, American Board of Anesthesia.

The centennial of a major specialty in medicine is marked by a brief consideration of the dynamic development of Anesthesiology since Long's use of ether on March 30, 1842. Emphasis is laid on the discoveries through research, teaching, and clinical application. Its present integration with such associated fields as physics and chemistry, physiology and pharmacology, as seen in the laboratory, medical school, hospital and office, is discussed. A concept of the contributions which Anesthesiology may make to scientific knowledge, as well as to safer and more efficient clinical application in the practice of medicine, is presented.

3:30 Discussion Conferences with Guest Essayist
(See Page 774.)

5:00 End of Fifth General Assembly

OUTLINE OF SECTION MEETINGS
Friday Morning, September 25, 1942

Medicine Ballroom, Pantlind 9:00 a.m.	*Obstetrics & Gynecology* Swiss Room, Pantlind 9:30 a.m.	*Surgery* Black & Silver Ballroom Civic Auditorium 9:00 a.m.	*Ophthalmology and Otolaryngology* Civic Auditorium	*Radiology, Pathology and Anesthesia* Red Room, Civic Auditorium 9:30 a.m.
Paul H. Noth, M.D. Detroit	J. Wm. Peelen, M.D. Kalamazoo	W. D. Gatch, M.D. Indianapolis, Ind.	Ophthalmology Room F—9:00 a.m.	Edward H. Skinner, M.D. Kansas City, Mo.
Paul S. Barker, M.D. Ann Arbor	Gardiner Riley, M.S. Ann Arbor	C. Fremont Vale, M.D. Detroit	Henry A. Dunlap, M.D. Detroit	C. W. Muehlberger, Ph.D. Lansing
Charley J. Smyth, M.D. Eloise	David J. Levy, M.D. Detroit	F. A. Coller, M.D. Ann Arbor	Meyer Wiener, M.D. St. Louis, Mo.	E. T. Bell, M.D. Minneapolis, Minn.
J. B. Youmans, M.D. Nashville, Tenn.	Franklin H. Top, M.D. Detroit	V. N. Butler, M.D. James E. Cole, M.D. Detroit	Paul A. Chandler, M.D. Boston, Mass.	Joseph A. Kasper, M.D. Detroit
Clarke J. McColl, M.D. Dwight C. Ensign, M.D. Frank J. Sladen, M.D. Detroit	W. C. Danforth, M.D. Evanston, Ill.	*Pediatrics* Colonial Room, Pantlind 9.00 a.m.	Harold F. Falls, M.D. Ann Arbor	*General Practice* Rooms B-C-D, Civic Auditorium 9:00 a.m.
Carl Heller, M.D. Detroit	—Luncheon—	Charles F. McKhann, M.D. Ann Arbor	J. Conrad Gemeroy, M.D. Detroit	H. C. Guess, M.D. Buffalo, N. Y.
J. Burns Amberson, M.D. New York, N.Y.	*Dermatology* Directors' Room Civic Auditorium 9:30 a.m.	S. D. Kramer, M.D. Lansing James L. Wilson, M.D. Detroit Sister Elizabeth Kenny Australia Don W. Gudakunst, M.D. New York	Otolaryngology Room G—9:30 a.m.	Henry J. Kehoe, M.D. Detroit
	Eugene S. Traub, M.D. New York, N. Y.		George E. Shambaugh, Jr. M.D., Chicago	Gordon B. Myers, M.D. Detroit
	L. A. Brunsting, M.D. Rochester, Minn.		Clifford F. Brunk, M.D. Detroit	Eugene Secord, M.D. Detroit
	C. J. Marinus, M.D. Detroit		James H. Maxwell, M.D. Ann Arbor	M. S. Chambers, M.D. Flint
	—Luncheon—	Bronson Crothers, M.D. Boston	J. Lewis Dill, M.D. Detroit	—Business Meeting—
			—Luncheon—	

SECTION MEETINGS ON FRIDAY MORNING ONLY. DETAILED PROGRAMS ON PAGES 778-781
Admission to all meetings by Badge Only. Register—Exhibit Floor—Civic Auditorium.

PROPOSED AMENDMENTS TO CONSTITUTION AND BY-LAWS OF MICHIGAN STATE MEDICAL SOCIETY

The following amendments were presented at the 1941 Convention and according to the Constitution were referred to the 1942 Session of the House of Delegates for final consideration:

Constitution

1. Amend **Article III, Section 4,** by adding the following sentence: "Honorary members shall pay no dues to the State Society and shall be without right to vote or hold office in either County or State Society."

Comment: The present Constitution provides for Honorary Members, but does not state whether or not they shall pay dues, vote, or hold office. Therefore, this amendment would clarify the status of Honorary Members.

2. Amend **Article IV, Section 3,** by adding the following sentence: "The past presidents shall be members at large of the House of Delegates during the first five (5) years of their past presidency with right to vote and hold office."

Comment: This amendment would make all past presidents of the Michigan State Medical Society automatically members at large of the House of Delegates for the first five years following their term as president.

3. Amend **Article IV, Section 5,** by re-arranging the Section, to read as follows: "The House of Delegates shall at the regular annual session, elect the President-elect, a Speaker and Vice Speaker of the House of Delegates, Members of The Council, and such other officers as may be created by the House of Delegates, unless otherwise specified in the Constitution and By-laws. It also shall elect delegates and alternate delegates to the American Medical Association."

Comment: This amendment would add delegates and alternates to the American Medical Association to the list of officers to be elected by the House of Delegates at its annual session.

4. Amend **Article X, Section 1,** third sentence, by having the word "Session" changed to "Meeting" and read as follows: "A majority of all the members present at that *meeting* shall determine the question and be binding."

Comment: Clarification of the term "session" and "meeting."

5. Delete **Article III, Section 3** (referring to Junior Membership), and re-number subsequent sections in Article III from 4 to 8, to 3 to 7, respectively.

Comment: This amendment would eliminate a duplication in the Constitution. At the present time Associate Membership in the State Medical Society is provided for interns in addition to Junior Membership and it is felt that membership privileges for interns is adequately covered by Associate Membership.

6. Amend **Article V, Section 1,** by deleting the fifth and sixth sentences of the Section, which read: "The President, the President-elect, the Secretary, and the Treasurer shall be ex officio members and without right to vote. The Speaker of the House of Delegates shall be a member of The Council and of its Executive Committee with power to vote."

Comment: This amendment would give the president, president-elect, secretary and treasurer, now members of The Council, the right to vote.

By-Laws

7. Amend the By-laws by adding a new Section to **Chapter 1,** in accordance with the following resolution presented at the 1941 House of Delegates:

"WHEREAS, before active members of the Michigan State Medical Society may be transferred to the Roster of either Honorary Members, or Retired Members, or Members Emeritus, proper investigation of their qualifications must be made for such transfer as provided in Article III, of the Constitution, Sections 4, 6, and 7, then

"BE IT RESOLVED, that the County Societies send resolutions for such transfers to the Secretary of the State Society at least thirty days before the annual meeting of the Society.

"BE IT FURTHER RESOLVED, that the Secretary of the State Society present a resolution essentially combining these resolutions in a compact form to the House of Delegates at the regular annual meeting of the Society."

No specific amendment was offered, the above resolution being referred to the 1942 Session of the House of Delegates for consideration.

— PROGRAM of SECTIONS —

FRIDAY MORNING
September 25,1942

SECTION ON MEDICINE

Chairman: GORDON B. MYERS, M.D., Detroit
Secretary: H. M. POLLARD, M.D., Ann Arbor

Ballroom, Pantlind Hotel

A. M.

9:00 to 9:20 "Digitalis Therapy in Cardiac Disease"
PAUL H. NOTH, M.D., Detroit

9:25 to 9:45 "Troublesome Problems in Circulatory Disease"
PAUL S. BARKER, M.D., Ann Arbor

9:50 to 10:10 "Significance and Management of Joint Pain"
CHARLEY J. SMYTH, M.D., Eloise

10:15 to 10:45 "The Clinical Importance of Protein in the Diet"
J. B. YOUMANS, M.D., Nashville, Tennessee

J. B. YOUMANS

A.B., U. of Wis., 1915; M.S., 1916, and M.D., Johns Hopkins, 1919; interned, Milwaukee Children's Hospital; asst. in medicine, Johns Hopkins, 1921-22; instructor in internal medicine, U. of Mich., 1922-24; assistant professor of medicine, Vanderbilt, 1924-28; associate professor of medicine, 1928-40; director of postgraduate instruction since 1930; at present professor of medicine and acting head of department of medicine and physician-in-chief at Vanderbilt University Hospital.

The biologic functions and requirements of protein in man, the manifestations of protein deficiency, its diagnosis, especially of the milder forms and treatment by various means are discussed in relation to various aspects of clinical medicine and the protein constituent of diet.

10:50 to 11:10 "Present Day Gout—Report of Certain Diagnostic and Therapeutic Experiences"
CLARKE M. MCCOLL, M.D., DWIGHT C. ENSIGN, M.D., and FRANK J. SLADEN, M.D., Detroit

11:15 to 11:35 "Diagnosis and Treatment of the Male Climacteric"
CARL HELLER, M.D., Detroit

11:40 to 12:10 "Clinical Interpretation of Early Tuberculosis"
J. BURNS AMBERSON, JR., M.D., New York City
(Biography on Page 783.)

12:15 Election of Officers

PSORIASIS

Psoriasis has been the bête noir of physicians for many generations. Louis A. Brunsting, M.D., of Mayo Clinic is going to discuss "The Treatment of Psoriasis" at the Section Meeting on Dermatology, Friday, September 24. Dr. Brunsting, who has been very active in the research work on the therapy of psoriasis, also will present in a beautiful colored film a visual demonstration of the therapy. The Dermatological Section invites every practitioner to attend this timely presentation.

SECTION ON SURGERY

Chairman: ROGER V. WALKER, M.D., Detroit
Secretary: ROBT. H. DENHAM, M.D., Grand Rapids

Black & Silver Ballroom, Civic Auditorium

A. M.

9:00 "Diagnosis and Treatment of Injuries of the Abdomen"
W. D. GATCH, M.D., Indianapolis

W. D. GATCH

A.B., Indiana University, 1901. M.D., Johns Hopkins Medical School, 1907. Assistant Resident Surgeon, Johns Hopkins Hospital, 1907-1911. Resident Surgeon, Washington University Hospital, 1911. Professor of Surgery and Dean, Indiana University School of Medicine, 1930 —.

Injuries of the abdomen divided into three groups:
Group I—With external signs of injury
Group II—Without external signs of injury
Group III — Abdominal symptoms due to injuries elsewhere.

The occurrence and symptoms of each group will be discussed along with the treatment.

The patient with penetrating wounds of the abdomen should be subjected to immediate laparotomy even though in relatively bad condition. Certain conditions under which laparotomy should be performed even when there is no external mark of injury.

Diagnosis and treatment of rupture of the diaphragm. This may occur as late as several weeks after the original injury and may be mistaken for coronary occlusion.

Anesthesia.

Proper incisions for treatment of abdominal injuries.

The use of the sulfonamide drugs and adjuvent treatments.

9:40 "Some Surgical Problems in Ulcer Treatment"
C. FREMONT VALE, M.D., Detroit

10:20 "The Local Use of the Sulfonamides in Surgery"
F. A. COLLER, M.D., Ann Arbor

11:00 "Treatment of Burns in the Smaller Hospital"—illustrated by colored moving pictures*
VOLNEY N. BUTLER, M.D., and
JAMES E. COLE, M.D., Highland Park

11:40 Question and Answer Period

12:15 Election of Officers

(*Movie to be shown after the election of officers)

SECTION ON GYNECOLOGY AND OBSTETRICS

Chairman: ROBT. B. KENNEDY, M.D., Detroit
Secretary: ROGER S. SIDDALL, M.D., Detroit

Swiss Room, Pantlind Hotel

A. M.

9:30 "Pregnancy Complicated by Acute Poliomyelitis"
J. WILLIAM PEELEN, M.D., Kalamazoo

9:50 "The Place of Hormone Assays in Clinical Medicine"
GARDINER RILEY, Ph.D., Ann Arbor
(By Invitation)

10:10 "Diarrhea of the Newborn": Clinical Aspects

DAVID J. LEVY, M.D., Detroit

"Epidemiological Aspects and Methods of Control"

FRANKLIN H. TOP, M.D., Detroit

11:00 "Selection of Operation in Cases Requiring Hysterectomy"

W. C. DANFORTH, M.D., Evanston, Ill.

W. C. DANFORTH

M.D., Northwestern University Medical School, 1903; intern at Cook County Hospital, 1903-04; postgraduate study at University of Vienna, 1905-06. On the faculty of Northwestern University Medical School for many years as Associate Professor of Gynecology and Obstetrics until 1937; Professor since that date. Has contributed two text books, written one popular book and about sixty papers on various gynecological and obstetrical topics. Fellow, Institute of Medicine of Chicago and member of American Gynecological Society.

Hysterectomy is a frequently performed operation. The employment of a fixed technic in all cases is inadvisable. The choice of operation should be made to fit individual conditions. Subtotal abdominal, total abdominal, and vaginal hysterectomy all have their place. Practice in active clinics tends to the more frequent removal of the entire uterus. Study of 1500 cases of various types is presented.

12:00 Election of Officers

12:30 Luncheon

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman: F. BRUCE FRALICK, M.D., Ann Arbor

Vice Chairman: DON M. HOWELL, M.D., Saginaw

Secretary: A. E. HAMMOND, M.D., Detroit

Vice Secretary: ANDRE CORTOPASSI, M.D., Saginaw

OPHTHALMOLOGY
Room F, Civic Auditorium

A. M.

9:00 "Vaccines in the Treatment of Iritis and Uveitis"

HENRY A. DUNLAP, M.D., Detroit

9:20 "Transplantation of Preserved Tissue in Ophthalmic Surgery"

MEYER WIENER, M.D., St. Louis, Mo.

(Biography on Page 776)

Transplantation of preserved tissue in ophthalmic surgery has been practiced for nearly forty years. More thought has been given to it recently, especially in work with the cornea and fascia. True transplantation most likely does not take place, but a replacement, with the graft acting as a supporting membrane.

Heterogenous grafts of cornea, bone, cartilage and fascia, preserved in various media, have been employed in eye surgery. Recently, transplantation of cornea from different species has been revived, with contradictory results. Little has been done with conjunctiva.

Progress of the author's experimental research with preserved, heterogenous conjunctiva on rabbits and monkeys will be discussed in this presentation.

10:20 "Some Problems in the Treatment of Glaucoma"

PAUL A. CHANDLER, M.D., Boston

PAUL A. CHANDLER

M.D., Harvard Medical School, 1924. Instructor, Harvard Medical School; Surgeon, Massachusetts Eye and Ear Infirmary. Member New England Ophthalmological Society, American Academy of Ophthalmology and Otolaryngology, American Ophthalmological Society.

Acute congestive glaucoma has very different manifestations from those of chronic glaucoma. A single attack is usually sufficient grounds for operation. Classical iridectomy is the operation of choice in early cases, but fails permanently to relieve the tension in the neglected cases some other type of operation is indicated here. The greater problem in the management of chronic glaucoma is to decide whether conservative treatment or surgery should be employed. Factors influencing this decision are the age of the patient, the condition of the lens, and the ocular tension. A great deal of helpful information for making this decision can be obtained by measuring the tension on several occasions during the day, without treatment and with various forms of miotic therapy. If operation should be decided upon one should choose the type of operation best suited to the individual case.

11:20 "Exophthalmos in Children"

HAROLD F. FALLS, M.D., Ann Arbor

11:40 "Cataract Extraction with a Modified Dimitry Suction Syringe"

J. CONRAD GEMEROY, M.D., Detroit

12:00 Election of Officers of the Section

12:20 Luncheon of the Section

OTOLARYNGOLOGY
Room G, Civic Auditorium

A. M.

9:30 "Nasal Allergy"

GEORGE E. SHAMBAUGH, JR., M.D., Chicago

(Biography on Page 782)

The normal defense mechanisms of the nose and sinuses are sufficient to result in complete clearing of a great majority of all acute infections, if the tissues are put to rest. The chronicity of infections in the nose or sinus are due either to the type of infecting organism, usually anaerobic, or to an underlying allergy.

The majority of chronic sinus infections are due to a combination of infection and underlying allergy. Differentiation of the two types of chronic sinusitis is possible since each type has certain characteristics. These characteristics will be described and the diagnosis and treatment of the underlying allergic factor will be discussed. The best therapeutic results are when both the infection and the allergic factor are treated simutaneously.

10:45 Discussion—15 minutes

11:00 "Bacterial Hypersensitivity; A Neglected Phase of Allergy"

CLIFFORD F. BRUNK, M.D., Detroit

11:20 Discussion—10 minutes

11:30 "Atlanto-axial Dislocation, Case Report"

JAMES H. MAXWELL, M.D., Ann Arbor

11:50 Discussion—10 minutes

P. M.

12:00 "Vertigo"

J. LEWIS DILL, M.D., Detroit

12:20 Discussion—10 minutes

12:30 Election of Officers of the Section

12:40 Luncheon of the Section

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Chairman: CLAUD W. BEHN, M.D., Detroit
Secretary: FRANK STILES, M.D., Lansing

Directors Room—Civic Auditorium

A. M.

9:30 "The Therapy of Nevi and Their Relationship to Skin Malignancies"

EUGENE F. TRAUB, M.D., New York City

EUGENE F. TRAUB

B.S., 1916, and M.D., 1918, University of Michigan; Associate Clinical Professor of Dermatology and Syphilology, Skin and Cancer Unit, Postgraduate Medical School and Hospital, Columbia University. Consulting Dermatologist and Syphilologist to Centril Islip State Hospital, Nassau Hospital and Meadowbrook Hospital. Professor of Dermatology and Syphilology, University of Vermont. Consulting Dermatologist to Bishop DeGoesbriand Hospital, Burlington, Vermont. Fellow, Dermatological Section, New York Academy of York Dermatological Society and American Dermatological Association.

In dealing with a subject so comprehensive, it will be necessary to limit the discussion to the two principal types of nevi, namely the vascular and the pigmented. Despite many advances in therapy there still are decided differences of opinion as to what nevi should be treated and which should be left alone. Some suggest leaving them alone so that they may either disappear spontaneously or because of fear that treatment might convert a quiescent benign nevus into a malignant one. Such basic considerations in individual cases must be carefully weighed to determine the best procedure to be followed. If errors in judgment and management occur at this time, the most favorable opportunity to achieve a good result is usually lost and subsequent treatment becomes proportionately more difficult and unsatisfactory. Since some nevi may give rise to malignant growths, this fact must also determine our course of action. Fundamentals and actual procedures will be discussed in detail.

10:00 Discussion

10:20 "The Treatment of Psoriasis," illustrated by colored movie

LOUIS A. BRUNSTING, M.D., Rochester, Minn.

(Biography on Page 782)

From time to time, new fields of research awaken spurts of interest in the etiology and treatment of the age-old, baffling problem of psoriasis but most of these trails soon reach a dead end. Aside from its nuisance value and psychologic handicap to adolescents, psoriasis may cause real concern when the eruption is generalized or when it is associated with disabling complications such as psoriatic arthritis. In this latter condition there is usually a characteristic pattern of involvement and the management is of interest to dermatologists and internists alike. Lacking a cure for psoriasis, we find it important, especially in the widespread and complicated cases, to be able to offer a method of control which is efficient and economical. This is accomplished by the use of the Goeckerman regime which consists largely of inunctions of crude coal tar ointment and ultraviolet irradiation. The details of the technique which assure a favorable response in most instances are elaborated by colored motion pictures.

10:50 Discussion

11:10 "Skin Diseases and Endocrinology"

C. J. MARINUS, M.D., Detroit

11:40 Discussion

12:00 Election of Officers

P. M.

12:30 Luncheon at Pantlind Hotel

SECTION ON RADIOLOGY, PATHOLOGY, ANESTHESIA

Chairman: FRANK MURPHY, M.D., Detroit
Secretary: DONALD C. BEAVER, M.D., Detroit
Secretary: L. E. HOLLY, M.D., Muskegon

Red Room, Civic Auditorium

A. M.

9:30 "Duodenal Ulcer as a Wartime Disease of Citizen and Soldier"

EDWARD H. SKINNER, M.D., Kansas City, Mo.

EDWARD H. SKINNER

M.D., Medical Department, St. Louis University, 1904. Diplomate of American Board of Radiology; Past President of American Roentgen Ray Society (1928), and American Radium Society (1936). He has been the delegate from the Section of Radiology to the American Medical Association for several years and is a member of the American Board of Radiology and a Chancellor of the American College of Radiology. He has contributed extensively to radiologic literature and has served on the Editorial Board of the American Journal of Roentgenology and Radiumtherapy for nearly twenty years. He was the Janeway Lecturer and Medalist of the American Radium Society last year.

Reliable reports indicate that 20% of the English soldiers evacuated from Dunkerque developed duodenal ulcers. Numerous clinical reports in English medical literature assess 50% of gastrointestinal hospital admissions to radiologically diagnosed peptic ulcer. During the 1940 blitzkrieg over England the civilian population began to exhibit a distinct increase in the incidence of peptic ulcer. Peptic ulcer is an easy disease to simulate or malinger. Therefore, the roentgenographic demonstration of an actual lesion becomes an important factor in establishing the diagnosis. These new incidents serve to renew interest in the neurogenic, the dietetic and the infection theories upon the origin of duodenal or peptic ulcer.

10:30 "Toxicology of War Cases"

C. W. MUEHLBERGER, PH.D., Lansing, Mich.
(By invitation)

11:15 "Tumors of the Breast"

E. T. BELL, M.D., Minneapolis, Minn.

(Biography on Page 776)

An analysis is made of 2,100 surgical specimens of breast tissue. The percentage of lesions of different types is tabulated. Tumors are classified from the clinical standpoint as follows: a single well defined mass (a) adherent, (b) non-adherent; multiple massses; acute carcinoma; Paget's disease; mastitis; and discharge from the nipple. The procedure to establish the diagnosis is discussed in each form. The histological appearances are shown in lantern slides. The relation of the age of the patient to the type of tumor is discussed.

11:45 A Modified Quantitative and Qualitative Benedict Test for Sugar in Urine."

JOSEPH A. KASPER, M.D., Detroit, Mich.

12:00 Discussion Period. Short Business Meeting. Election of Officers

SECTION ON PEDIATRICS

Chairman: JOHN SANDER, M.D., Lansing
Secretary: LEON DEVEL, M.D., Grand Rapids

Colonial Room, Pantlind Hotel

A. M.
9:00 Round Table on "Poliomyelitis"

CHARLES F. MCKHANN, M.D., Ann Arbor, Chairman

1. **"Research in Poliomyelitis"**
   S. D. KRAMER, M.D., Lansing
2. **"Prognosis of Poliomyelitis and Treatment of the Commonly Fatal Types"**
   JAMES L. WILSON, M.D., Detroit
3. **"The Kenny Treatment of Poliomyelitis"**
   SISTER ELIZABETH KENNY of Australia

SISTER KENNY

ELIZABETH KENNY, *Brisbane, Queensland, Australia. Originator of Kenny method of treatment for poliomyelitis. Author of "Treatment of Infantile Paralysis in the Acute Stage."*

Infantile paralysis has been regarded in the past as a disease causing muscles of the body to become hypotonic and flaccid. Treatment for such condition was to rest the supposedly affected muscles by the application of splints and casts. On the contrary the muscles affected by the disease of infantile paralysis are hyper-irritable and in spasm. The toneles and supposedly paralyzed muscles are the normal muscles. It is obvious that the true symptoms of the disease are quite the reverse from that of the previous conception. It follows that a treatment devised for flaccid paralysis could not be adapted to a disease in which the muscles have the reverse condition or spasm of the muscles. Spasm is the damaging condition in acute infantile paralysis. Spasm in muscle precedes paralysis and causes destruction of muscles, shortening of muscles, and eventually produces deformities. Treatment properly designed and instituted early will prevent undesirable after-effects.

4. **"Survey of the Progress Against the Disease"**
   DON W. GUDAKUNST, M.D., New York N. Y.

D. W. GUDAKUNST

M.D., University of Michigan, 1919; Dr.P.H., Wayne University, 1937; Director School Health Service, Detroit Department of Health, 1924-37; Professor of Public Health and Preventive Medicine, Wayne University, 1937-41; Deputy Health Commissioner, Detroit Department of Health, 1932-37; State Health Commissioner, Michigan Department of Health, 1938-39; Senior Surgeon (R) U. S. Public Health Service, 1939; Medical Director, National Foundation for Infantile Paralysis since 1940.

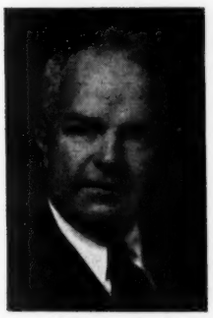
Advance in poliomyelitis has occurred along many lines. Not only do we have an improvded regime of treatment (Kenny), but much has been learned about the virus, its possible modes of transmission, its presence in nature, and possible avenues of entrance to the body. Knowledge in respect to pathological and histological changes produced by the virus has been extended. There are many unanswered problems in epidemiology, immunology, prophylaxis, and therapy, but ways of approaching these have been developed to a promising extent.

10:45 Recess

11:00 "Prognosis After Injury or Infection of the Nervous System in Childhood"

(Illustrated by moving pictures and slides)

BRONSON CROTHERS, M.D., Boston



BRONSON CROTHERS

A.B., 1905, and M.D., 1910, Harvard University, Assistant Professor Pediatrics, Harvard Medical School, Member American Medical Association, etc., American Pediatric Society, American Neurological Association, etc. Author of "A Pediatrician in Search of Mental Hygiene" and various papers in neurological and pediatric journals.

Recovery after injury or infections of young children is difficult to define unless growth and development are taken into consideration. This is particularly true if attention is given to the nervous system. It is obvious that recovery is inadequate if mere restitution to a previously attained status is achieved. The process cannot be regarded as complete until evidence is available which indicates that the child is going along a developmental road which leads to orderly and effective education and eventual general adequacy.

Any attempt to carry out investigation of this sort demands patience and assistance from skilled psychologists and social workers. The implications of such a study, however, are relatively clear and perhaps useful.

The major value of the approach is related to the medical and educational management of children during the months or even years which may elapse before a durable prognosis can be made.

12:00 Election of Officers.

SECTION ON GENERAL PRACTICE

Chairman: ARCH WALLS, M.D., Detroit
Secretary: H. B. ZEMMER, M.D., Lapeer

Rooms B-C-D, Civic Auditorium

A. M.
9:00 "Evaluation of Rectal Examinations"
H. C. GUESS, M.D., Buffalo, N. Y.

H. C. GUESS

M.D., University of Buffalo, 1912; internship at Buffalo General Hospital, 1913-14; 1st Liuet, M.C., Merican Border Service, 1916; Captain, M.C., 65th Infantry, N.Y.G., 1917-18. Postgraduate studies in proctology at Poly Clinic, 1918; St. Marks, London, 1929; Fredreicksheim Kranenhaus, Berlin, 1929, and Harvard, 1929. Chief Proctologist Millard Fillmore Hospital and Buffalo Hospital Sisters of Charity. Attending Proctologist Edward J. Meyer Memorial Hospital. Consulting Proctologist J. N. Adam Memorial and Lafayette General Hospitals, Buffalo. Fellow American College of Surgeons and American Proctologic Society.

A rectal examination is performed easily and quickly. The pain previously experienced during this examination has been minimized by the various anesthetic means for aiding an operator who studies the anatomy of the rectum and the anal canal.

Reluctance on the part of the patient, especially females, that formerly existed is today almost nil. Can as much be said regarding physicians in making rectal examinations? The more the general practitioner performs rectal examinations, the greater the

number of earlier diagnosed cases of cancer will be recorded. Much suffering will be avoided, and a greater number of lives will be saved by adequate surgery. Eighty per cent of all cancers of the rectum may be determined by a digital examination.

Even our present armamentarium, radical surgery, requires early diagnosis for a complete cure of cancer of the rectum. Much time and money is wasted when a physician omits a rectal examination.

9:40 "Electrocardiography. Its Value and Limitation."
HENRY J. KEHOE, M.D., Detroit

10:20 "The Newer Developments in the Use of the Sulfonamides, and Complications"
GORDON B. MYERS, M.D., Detroit

10:50 "The Diagnosis and Office Treatment of Some Common Orthopedic Complaints"
EUGENE SECORD, M.D., Detroit

11:30 "Shock (Peripheral Circulatory Failure)"
MYRTON S. CHAMBERS, M.D., Flint

12:10 Business Meeting. Election of Officers. (Ten minutes discussion after each talk)

HOUSE OF DELEGATES, 1942

REFERENCE COMMITTEES

Credentials Committee

J. J. O'Meara, M.D., **Chairman**

D. C. Stephens, M.D. — Hazen L. Miller, M.D.
C. W. Oakes, M.D. — E. G. Bovill, M.D.

On Officers' Reports—Room 122

C. E. Toshach, M. D., **Chairman**

W. B. Harm, M.D. — C. D. Brooks, M.D.
Don V. Hargrave, M.D. — Gordon Yeo, M.D.

On Reports of The Council—Parlor B

Joseph Andries, M.D., **Chairman**

Frank Reeder, M.D. — A. T. Hafford, M.D.
Grover C. Penberthy, M.D. — A. V. Wenger, M.D.

On Reports of Standing Committees—Room 124

O. D. Stryker, M.D., **Chairman**

L. W. Gerstner, M.D. — Volney Butler, M.D.
L. J. Morand, M.D. — H. T. Sethney, M.D.
Charles S. Kennedy, M.D. — D. Bruce Wiley, M.D.
Donald Thorup, M.D. — R. K. Hart, M.D.

On Reports of Special Committees—Room 126

Stanley W. Insley, M.D., **Chairman**

V. C. Abbott, M.D. — M. G. Becker, M.D.
J. J. Walch, M.D. — D. J. O'Brien, M.D.
W. H. Alexander, M.D. — Wm. S. Gonne, M.D.

On Amendments to Constitution and By-Laws—Room 127

C. L. Hess, M.D., **Chairman**

John A. Wessinger, M.D. — David I. Sugar, M.D.
H. W. Plaggemeyer, M.D. — W. D. Barrett, M.D.

On Resolutions—Room 128

A. E. Catherwood, M.D., **Chairman**

D. R. Brasie, M.D. — A. C. Roche, M.D.
R. L. Novy, M.D. — G. L. McClellan, M.D.
C. F. DeVries, M.D. — Carl F. Snapp, M.D.
Dean W. Myers, M.D. — Roger V. Walker, M.D.

Reference Committee reports are to be submitted to the House of Delegates in triplicate

FRIDAY AFTERNOON
September 25, 1942

Seventh General Assembly

Black and Silver Ballroom—Civic Auditorium

P. L. LEDWIDGE, M.D., Presiding
L. FERNALD FOSTER, M.D., and ANDRÉ CORTOPASSI, M.D., Secretaries

P. M.

1:30 "Deafness or Impaired Hearing"
GEORGE E. SHAMBAUGH, JR., M.D., Chicago, Illinois

GEO. E. SHAMBAUGH, JR.

A.B., Amherst College, 1924; M.D., Harvard Medical School, 1928. Chairman, Dept. of Otolaryngology, Rush Medical College, 1938-41; Associate Professor of Otolaryngology, Univ. of Ill., 1941; Consultant in Otology, Municipal Contagious Disease Hospital, Chicago, 1934-41; Assistant Professor of Otolaryngology, Northwestern University Medical School, 1942 to present.

A duty and responsibility of the family physician is to guide and direct hard of hearing and deafened patients away from useless treatment and lower the possibility of alleviation or cure when such exists.

Complete deafness is rare and is always due to destruction of the perceptive mechanism in the ear. Nothing can be done except special training in lip reading and speech.

Impaired hearing may be due to lesions of the sound conduction apparatus or perceptive mechanism and in each case appropriate tests indicate the location of the pathology. As a rule lesions of the perceptive mechanism are not amendable to treatment, but efforts should be made to remove any etiological factor to prevent further loss. On the other hand impaired hearing due to lesions of the conductive apparatus can be improved or restored at the present time in the majority of cases by appropriate medical or surgical means. These treatments, including the Fenestration Operation for Otosclerosis will be briefly described, and the results of these treatments in a series of cases will be presented.

2:00 "Pyogenic Infections of the Skin, Particularly Hidradenitis Suppurative"
LOUIS A. BRUNSTING, M.D., Rochester, Minnesota

LOUIS A. BRUNSTING

Consultant in Dermatology and Syphilology, The Mayo Clinic and Associate Professor in Dermatology and Syphilology, The Mayo Foundation, University of Minnesota Graduate School at Rochester, Minnesota. Born July 7, 1900, at Grand Rapids, Michigan; attended John Calvin College and Grand Rapids Junior College; M.D. in 1924, University of Michigan; intern at Blodgett Memorial Hospital, Grand Rapids, and practiced in Nashville, Michigan, for nine months. Entered the Mayo Foundation as a Fellow in Dermatology and Syphilology April 1, 1926, and received the degree of M.S. in Dermatology and Syphilolgy in 1929 from the University of Minnesota. Member of American Dermatological Association, American Academy of Dermatology, Society for Investigative Dermatology, Minnesota and Chicago Dermatological Societies.

In the study of pyogenic disorders of the skin there has been, in general, too much emphasis on the invading organisms and too little on the host or on the qualities that make up a favorable soil. This paper emphasizes a not uncommon form of pyoderma

known as hidradenitis suppurativa which is characterized by chronic and recurrent burrowing abscesses and sinuses of the apocrine-gland bearing zones of the body, the axillæ, inguinal folds, genitalia, perineum, perianal regions and, in obese females, the lower half of the dependent breasts. Treatment must be individualized to include measures of general hygiene, the use of sulfonamide drugs, roentgen therapy and often surgical excision and grafting of the sites.

2:30 Intermission to View Exhibits

3:00 "Newlyborn Period as a Public Health Problem"

CLIFFORD G. GRULEE, M.D., Evanston, Illinois

CLIFFORD G. GRULEE

M.D. Northwestern University Medical School, 1903; has taught at Rush Medical College since 1908; Head of Department from 1919 on; now Rush Professor of Pediatrics, Medical School of the University of Illinois; during World War I was Assistant Chief of the Children's Bureau, American Red Cross in France; since 1924, Chief Editor of the American Journal of Diseases of Children; since 1929, Secretary, American Academy of Pediatrics.

The problem of the care of the newborn has changed so rapidly in the last few years with the increase of hospital care for deliveries that new problems have to be met and new situations encountered. As a consequence we must review the whole problem of the care of the newlyborn infant with this in view. Mortality statistics show some reduction but not sufficient. The matter of maternal nursing is one of the most serious problems to be met and conquered. Other conditions such as epidemic diarrhea, impetigo, septicemia and especially prematurity must be considered and ones which must be met with all newer factors in view. Question of the newborn nursery and the place of the public health authorities in control are subjects for our examination.

ACKNOWLEDGMENT. The Children's Fund of Michigan is sincerely thanked for its sponsorship of this lecture.

3:30 "Significance of Unresolved, Organizing, or Protracted Pneumonia"

J. BURNS AMBERSON, JR., M.D., New York, New York

J. B. AMBERSON, JR.

Ph.B., Lafayette College, 1913; M.D., Johns Hopkins Medical School, 1917. At present, Professor of Medicine, College of Physicians and Surgeons, Columbia University; Visiting Physician in Charge, Tuberculosis Service, Bellevue Hospital; President of the National Tuberculosis Association.

The various clinical pictures of recurrent, unresolved and protracted pneumonia which frequently masks some underlying condition will be discussed. The term atypical pneumonia which is used so much, may be used to label the case which is atypical not so much because of the nature of the infection as of some more important mechanism. Such cases include: bronchiectasis, carcinoma of the bronchus, benign tumors of the bronchus, tuberculosis of the bronchus, foreign bodies, broncho-esophageal fistulæ, oil pneumonia and other conditions. I shall plan to point out how such conditions may be suspected and identified.

4:00 "Postoperative Gastro-intestinal Disturbances"

CHARLES B. PUESTOW, M.D., Chicago, Illinois

CHARLES B. PUESTOW

B.S., U. of Wisconsin, 1923; M.D., University of Pennsylvania, 1925; intern at U. of Pa. Hospital, two years. First assistant to C. H. Frazier, Professor of Surgery, U. of Pa. Fellow in Surgery, Mayo Foundation, four years. Master of Science in Experimental Surgery, 1931, and Ph.D. in Surgery, 1932, University of Minnesota. Since 1931 member of faculty U. of Illinois College of Medicine, and Surgeon to the Illinois Research and Educational Hospitals. Since 1937, Associate Professor of Surgery, University of Illinois, College of Medicine and Graduate Medicine. Writer of numerous medical articles and books.

Disturbances of gastrointestinal motility comprise some of our most distressing morbidity factors. These consist of nausea, vomiting, distention, and fas pains. These are chiefly the result of altered intestinal peristalsis and are influenced by a variety of factors, among which are: types and depth of anesthesia; mechanical trauma to the gastrointestinal tract; fluid balance; the nature and time of the initiation of postoperative feeding; and the influence of drugs. Studies have been made on these various factors which we believe shed some light on the causes and methods of prevention of such surgical complications.

4:30 End of Seventh General Assembly
END OF CONVENTION

Map of Councilor Districts of the Michigan State Medical Society

TECHNICAL EXHIBITS

Abbott Laboratories **Booth No. E-9**
North Chicago, Illinois

You are heartily invited to visit this comprehensive display of Abbott specialties including a wide range of vitamin products, Metaphen, Sulfonamides, Pentothal Sodium, Arsenicals, Estriol, Estrone, et cetera. Abbott-trained representatives will be glad to exchange notes with you regarding the newer items on display.

So! Stop in and see us!

A. S. Aloe Company **Booth No. E-16**
St. Louis, Missouri

Aloe will exhibit a cross-section of their complete line of surgical, laboratory and physiotherapy equipment. Featured will be American made stainless steel instruments and newly developed specialties. Michigan representatives, T. T. Boufford and E. E. Davis will be in attendance.

Audiphone Company **Booth No. A-13**
Of Detroit and Grand Rapids

An exhibit showing the new Western Electric Ortho Tronic Vacuum Tube Hearing Aid; the Western Electric 6B Diagnostic Audiometer; One Western Electric 4C Group Audiometer and the 3A Electrical Stethoscope.

Baker Laboratories **Booth No. C-3**
Cleveland, Ohio

"Baker's complete line of infant foods will be on display. Baker's Modified Milk, available in both the powder and liquid forms, is a completely prepared milk formula for the bottle-fed baby. Melcose, also a completely prepared milk, is very economical. Melodex (maltose and dextrin) is a carbohydrate, made especially for modifying fresh or evaporated milk formulas."

Bard-Parker Company, Inc. **Booth No. E-21**
Danbury, Connecticut

The following products will be exhibited at the Bard-Parker booth: Rib-Back Surgical Blades, Long Knife Handles for deep surgery, Renewable Edge Scissors, Formaldehyde, Germicide, and Instrument Containers, Transfer Forceps, Hematological Case for obtaining bedside blood samples, Ortholator for obtaining accurate dental radiographs.

Barry Allergy Laboratory **Booth No. B-6**
Detroit, Michigan

Allergy skin testing by rapid, time-saving methods will be demonstrated at the Barry Allergy Laboratory's booth, as well as several new products which are associated with allergy.
Having specialized in this field for the last ten years and maintaining a medical reference library on allergy, it will be a pleasure to assist in any allergy problems and furnish definite medical references.

Becton, Dickinson & Co. **Booth No. C-9**
Rutherford, New Jersey

Becton, Dickinson will have on display standard lines of hypodermic syringes, needles, Ace Bandages, thermometers and diagnostic instruments. The attendants will be fully versed in the latest information as to the availability of supplies of this nature and will welcome your questions.

The Borden Company **Booth No. B-20**
New York City

For news about Borden's scientifically designed infant foods, visit Booth No. B-20. **Biolac**—a complete formula except for vitamin C. **New Improved Dryco**—provides increased potencies of vitamins A and D, quicker solubility, and maximum formula flexibility. **MULL-SOY**—emulsified food for infants allergic to milk, readily digestible, exceptionally palatable. Also **Beta Lactose, Klim, Merrell-Soule Powdered Milks,** and **Borden's Silver Cow Irradiated Evaporated Milk.**

Ernst Bischoff Company **Booth No. D-9**
Ivoryton, Connecticut

Activin, the first American produced shockless foreign protein for nonspecific therapy.
Anayodin is an effective, nontoxic amebicide. It attacks the amebas which have penetrated the tissues.
Dintussin, the original drop-dose cough remedy with a thirty-five year record of efficacy.
Lobelin-Bischoff, a direct stimulant to the respiratory center. The resuscitant indicated in all forms of respiratory failure or depression.
Sas-Par, Antipruritic. Oral treatment for psoriasis.

Bruce Publishing Company **Booth D-8**
Saint Paul, Minnesota

Burroughs Wellcome & Co. (U.S.A.) Inc.
New York, New York **Booths No. C-11, C-13**

Burroughs Wellcome & Co. (U.S.A.) Inc., New York, will exhibit at Booths Nos. C-11 and C-13 a representative group of fine chemicals and pharmaceutical preparations, together with important therapeutic agents that will be of interest to the medical profession.

Cameron Heartometer Company **Booth No. D-17**
Chicago, Illinois

The Cameron Heartometer Company is showing the improved Heartometer, a scientific precision instrument for accurately recording systolic and diastolic blood pressures. It also furnishes a permanent graphic record of the pulse rate, the nervous functioning of the heart, the myocardial strength, as well as the functioning of the valves. The Heartometer clearly reveals heart disturbances in both early and advanced stages and is of great value in checking the progress of medication and treatments.

Cameron Surgical Specialty Company **Booth No. C-18**
Chicago, Illinois

See the new Cameron Flexible Gastroscopes, Binocular Prism Loupes, Color-Flash Clinical Camera, the Mirrolite and latest developments in electrically lighted diagnostic and operating instruments for all parts of the body. Of special interest are the new Spark Gap & Tube Electro-Surgical Units for cutting, coagulating, desiccation, fulguration and orificial ultra-violet therapy in all sizes from the office model Cauteradio to the combination major surgical Hospital United with an abundance of power for the most radical work.

S. H. Camp & Company **Booth No. B-14**
Jackson, Michigan

S. H. Camp and Company, Jackson, Michigan, will show a series of anatomical drawings by Tom Jones as the central theme of their exhibit. There will be included also a display of the anatomical supports carried by the company's authorized dealers who are equipped to serve patients for the various supports prescribed by physicians for prenatal, postnatal, hernial, sacro-iliac, lumbosacral, visceroptosis and other specific conditions. Experts from the Camp staff will be in attendance to answer questions.

Ciba Pharmaceutical Products, Inc.
Summit, New Jersey **Booth No. A-5**

Physicians are cordially invited to visit Booth A-5 where the well-known specialities of Ciba Pharmaceutical Products, Inc., will be displayed. A representative of the firm will be in attendance and will be glad to answer any questions concerning the products displayed.

Cottrell-Clarke, Inc. **Booth No. D-11**
Detroit, Michigan

Cottrell-Clarke, Inc., Michigan's progressive record and physicians' stationery folks, say all the words in the world cannot adequately describe their extended showings of records designed to meet the record needs of every medical man, hospitals (large and small) and various phases of public health work, for they range from simple common record cards and record sheets, case record envelopes to Cottrell-Clarke's new "expanso" record cards and to the Cottrell-Clarke Manufile binder-folders.

Cream of Wheat Corporation **Booth E-7**
Minneapolis, Minnesota

The Cream of Wheat Corporation will exhibit "Enriched 5-Minute" **Cream of Wheat.** This improved cereal is completely cooked in five minutes and has been enriched with additional Vitamin B_1 (Wheat Germ and Thiamin), iron, calcium, and phosphorus.

R. B. Davis Company **Booth No. E-3**
Hoboken, New Jersey

Don't fail to stop at the Cocomalt booth for a nourishing refreshment. This very palatable malted food dring is fortified with Vitamins A, B_1 and D as well as the minerals calcium, phosphorus and iron. There's lots of energizing nourishment in each mouthful.

Davis & Geck, Inc. **Booth No. A-8**
Brooklyn, New York

"This One Thing We Do"
10 Sutures

Davis & Geck, Inc. will display its complete line of sterile sutures including a comprehensive group armed with swaged-on Atraumatic needles and designed for specific surgical procedures.
A further feature of this exhibit will be a motion picture theatre in which a diversified program of surgical films, in full color, will be presented. The following subjects will be shown on Wednesday:

8:30 A. M. **Internal Wiring of Jaw Fractures**—With Note on External Bar Fixation
Drs. James Barrette Brown and Frank McDowell, Washington Univ. School of Med.

8:50-9:30 A. M. **Cancer of the Female Breast**—Diagnosis and Treatment
Dr. Frank E. Adair, Memorial Hospital, New York.

10:30-11:00 A. M. **War Wounds**—Skin Grafting of War Wounds and Observation of Healing
Dr. John M. Converse, American Hospital in Britain.

12:30 P. M. **Hernioplasty**—For Direct Inguinal Hernia
Dr. Lawrence S. Fallis, Detroit.

12:45-1:30 P. M. **Surgery of the Common Bile Duct**
Dr. Chas. B. Puestow, Univ. of Illinois School of Medicine.

2:30 P. M. **Intrathoracic Goiter**
The Lahey Clinic, Boston.

2:45-3:00 P. M. **Splenectomy**—For Banti's Disease
Drs. Roy D. McClure and Lawrence S. Fallis, Detroit.

3:30 P. M. **Obstructive Resection**—With Complementary Cecostomy
Dr. Fred W. Rankin, Lexington, Kentucky.

3:45 P. M. **Modified Mikulicz Operation.** Right colectomy for carcinoma of the cecum
Dr. Richard B. Cattell, Boston.

4:15 P. M. **Surgical Treatment of Varicose Veins**—with High Ligation and Individualized Stripping and Excision
Dr. Henry N. Harkins, Detroit.

4:35 P. M. **Purposeful Splinting**—Following Injuries of the Hand.
Drs. Sumner L. Koch, Michael L. Mason, Harvey S. Allen, Chicago.

4:50 P. M. **Manchester Operation,** (Donald-Fothergill operation) for Uterine Prolapse.
Dr. Louis E. Phaneuf, Boston.

5:15-5:45 P. M. **Abdominal Complete Hysterectomy** for Fibroids
Dr. Arthur H. Curtis, Northwestern Univ. Medical School.

Programs for succeeding days and information regarding the booking of films from the Surgical Film Library for local groups may be obtained from the Davis & Geck representatives in attendance at Booth A-8.

DePuy Manufacturing Company **Booth No. D-13**
Warsaw, Indiana

DePuy Manufacturing Company will exhibit modern fracture appliances. An interesting feature will be the Lorenzo Lag Screw for hip fractures—the Pease Bow and beaded wire for internal fixation of shaft bones—a large plaster cutter for removing body plasters—splints and bone instruments of various descriptions.
You will be welcome at the DePuy Booth. Mr. C. F. Klingel will be in charge.

Detroit Creamery Company **Booth No. D-16**
Detroit, Michigan

The Detroit Creamery Company and its associated companies in Michigan will sponsor the "Sealtest, Inc." exhibit. The exhibit will emphasize the work of the Sealtest System of Laboratory Protection in maintaining high standards of quality and purity in milk and ice cream products.

Detroit X-Ray Sales Company
Detroit, Michigan **Booths No. B-13, B-15**

Some new and interesting developments in x-ray apparatus will be displayed at the Detroit X-Ray Sales Company's booth. Among these will be a Navy Mobile Portable unit supplied to the United States Navy, and a complete line of Mattern Shockproof X-Ray units employing the latest types of steel housing, oil immersed x-ray tubes, including the Dynamax with rotating anode.

Doho Chemical Corporation **Booth No. C-1**
New York, New York

The Auralgan Exhibit consists of a model of the human auricle four feet high together with a series of twenty-four three dimensional ear drums, modelled under the supervision of outstanding otologists. Each of these drums depict a different pathologic condition based upon actual case observation and prepared, in so far as possible, with strict scientific accuracy so as to be highly instructive and interesting to all physicians.

Duke Laboratories, Inc. **Booth No. B-9**
Stamford, Connecticut

Duke Laboratories, Inc., will display the Elastoplast Occlusive Dressings and Mediplast—both products are being used routinely in the treatment of minor injuries—cuts—burns and abrasions—in the large defense Industries, and various governmental units. Elastoplast, used whenever compression and support are required, will also be demonstrated in addition to the Prescribers' Cosmetics—Nivea Creme, Skin Oil and Basis Soap.

E & J Resuscitator Company **Booth D-20**
Detroit, Michigan

THE E. & J. RESUSCITATOR—Used in all cases of extreme shock, asphyxia, drownings, heart attacks, its application is simple. Instrument adjusts itself to any size lung, especially in the resuscitating of new born, thereby eliminating the human element and saving precious moments in an emergency.

J. H. Emerson Company **Booth C-20**
Cambridge, Massachusetts

Two new items will be introduced:
1. **Emerson Defense Unit**—An automatic breathing apparatus using oxygen or air. Developed recently for field use for both the Army and Navy, for Defense Industries, and Home Defense protection.
2. **Citrox**—A sterile ointment for healing skin tissue damaged by noninfectious irritations. Used effectively in leading maternity centers and in industries where industrial dermatitis is a problem. Samples will be available.

H. G. Fischer & Company **Booth No. E-11**
Chicago, Illinois

The best way to look at an x-ray apparatus is with an x-ray. You have to get under the finish. It's down there that the real difference lies. To every visitor at the Michigan State Medical Society convention, accordingly, we give this special invitation: Look under the finish of the new **Fischer** models of appartus shown! **Fischer** shockproof x-ray apparatus, short wave units, ultra violet and other generators are built both for performance and to stand the very hardest day-by-day usage. Demand to be shown the real under-the-finish facts about **Fischer** Models.

C. B. Fleet Company **Booth E-22**
Lynchburg, Virginia

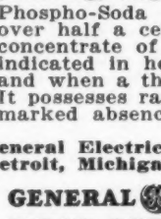
Phospho-Soda (Fleet) has been an ethical product over half a century. It is a pure, stable, aqueous concentrate of the two U. S. P. phosphates. It is indicated in hepatic and gall-bladder dysfunctions, and when a thorough eliminating action is desired. It possesses rapidity and smoothness of action with marked absence of nausea, griping or tenesmus.

General Electric X-Ray Corporation **Booth A-7**
Detroit, Michigan

GENERAL ELECTRIC
X-RAY CORPORATION
2012 JACKSON BLVD. CHICAGO, ILL., U. S. A.

Through Peace and War — in good times and bad—vital, dependable x-ray equipment and reliable, nation-wide service, is ever our watchword. Our big job today is to help win the War. But at the same time the General Electric X-Ray Corporation is qualified and prepared to help you today, as well as to assist in your planning for tomorrow.

Gerber Products Company **Booth No. B-7**
Fremont, Michigan



Gerber Baby Foods have expanded until now there are two precooked and dried cereals, one a wheat cereal and the other an oatmeal which is wheat-free, eighteen strained foods and ten chopped foods. The literature and professional reference cards are revised frequently and we invite you to inspect them.

Hack Shoe Company **Booth No. C-7**
Detroit, Michigan

Hack Shoe Company provides a prescription shoe service, individualized for the requirements of the particular case. Footwear on display at Grand Rapids will include tribalance shoes, Hack-O-Pedic shoes and Hack postoperative clubfoot shoes. The Hack fitting services fulfill the needs of men, women and children.

Hanovia Chemical and Manufacturing Company
Newark, New Jersey **Booth No. E-19**

The very latest in ultra-violet equipment will be demonstrated, including the outstanding uses of ultra-violet radiation in the fields of science, medicine and public health. Hanovia's Alpine Sun Lamps, with quartz burners, are accepted by the medical profession as the most effective of all ultra-violet sun lamps. Nearly 9 per cent of all ultra-violet lamps used by doctors and hospitals, the world over, are Hanovia made.

J. F. Hartz Company **Booths No. D-12, D-14**
Detroit, Michigan

The J. F. Hartz Company and its representative will have the pleasure of showing many of its fast growing lines of high grade pharmaceuticals as well as physiotherapy equipment, office furniture, and instruments.
Doctors and their assistants are cordially invited to visit our booth.

H. J. Heinz Company **Booth No. D-4**
Pittsburgh, Pennsylvania

The Heinz exhibit featuring Strained and Junior Foods merits your thoughtful attention if you prescribe for infant feeding or adults on soft diets.
The popular Nutritional Charts have something new added—a section on the "Application of the Science of Nutrition to Dietetics." While you're at the exhibit, register for the 10th edition.

Hoffmann-La Roche, Inc. **Booth No. A-12**
Nutley, New Jersey

War shortages of atropine and belladonna have greatly increased physicians' interest in **Syntropan.** This antispasmodic will be one of the featured products in the Roche exhibit.

The many uses for which PROSTIGMIN has proven to be effective will also be described by representatives of the Roche Medical Division who will be in attendance. Other pharmaceutical prescription specialties emanating from Roche Park will also be displayed.

Holland-Rantos Company, Inc. **Booth No. D-2**
New York, New York

Modern contraceptive technique will be graphically illustrated with a motion picture and all the various materials including the Koromex and Hyva diaphragms, Koromex jelly and Emulsion cream, together with a complete line of contraceptive specialties will be demonstrated at the booth of the Holland-Rantos Company. Displayed also, will be the new Rantex Masks and Caps, now used by hospitals all over the country.

J. L. Hudson Company **Booth No. B-18**
Detroit, Michigan

This interesting display will consist of a bedroom completely furnished as near nonallergic as available furnishings will permit.

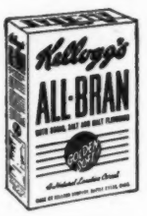
The G. A. Ingram Company **Booths No. D-1, D-3**
Detroit, Michigan

The G. A. Ingram Company extends an invitation to all visitors at the Michigan State Medical convention to make Booths D-1 and D-3 their headquarters and, especially, to investigate the new line of diagnostic instruments shown there. The latest in electrical equipment will also be shown.

"The 'Junket' Folks"
Chr. Hansen's Laboratory **Booth No. B-16**
Little Falls, New York

Enlarged photos illustrate graphically the action of the rennet enzyme in forming softer finer milk curds. Display of "Junket" Brand Food Products. Free literature describes dietary uses of rennet-custards in infant, child, convalescent, or post-operative feeding. Well-informed attendant on duty at all times.

The Kellogg Company **Booth No. E-6**
Battle Creek, Michigan



All Kellogg ready-to-eat cereals either are made from whole grains or are restored to whole grain nutritive value.
Kellogg's Pep, in addition to being restored to whole grain value, has been fortified with vitamins B_1 and D. Corn Flakes and Rice Krispies may be included freely in wheat-free and low residue diets. Read the reprints of reports covering recent research with bran.

A. Kuhlman & Company **Booth No. A-15**
Detroit Michigan

The Kuhlman display will consist of a selected line of diagnostic instruments, a special line of indwelling catheters, cystoscopes, urologic instruments, pneumothorax apparatus, and a general line of instruments and accessories for physicians and surgeons.

Lea & Febiger **Booth D-10**
Philadelphia, Pennsylvania

At space D-10 Lea & Febiger will exhibit among their new works Wintrobe's "Clinical Hematology," Craig's "Diagnosis of Protozoan Diseases," Thorndike's "Manual," Katz' "Electrocardiography and Exercises in Electrocardiographic Interpretation" and Rowe's "Elimination Diets." New editions will be shown of Gray's "Anatomy," Master on the "Electrocardiogram," Kovacs' "Electrotherapy," Knowles on "Diseases of the Skin," Werner's "Endocrinology," Gifford's "Ocular Therapeutics" and other standard works.

Lederle Laboratories, Inc. **Booth No. E-2**
Chicago, Illinois

We are pleased to invite the attention of the physicians attending to our complete line of outstand-

ing Vitamin B Complex preparations. These are available in the parenteral form, and for oral medication the liquid capsules and the highly potent tablet.

Libby, McNeill & Libby **Booth No. B-3**
Chicago, Illinois

"Libby's Baby Foods are of special interest to pediatricians because they are not only strained, like other baby foods, but first strained and then **specially homogenized.** This exclusive Libby process breaks up coarse cells and fibers, making foods **extra easy to digest.** The American Medical Association's Council on Foods and Nutrition accepts the statement that Libby's Baby Foods are extra easy to digest."

Liebel-Flarsheim Company **Booth B-17**
Cincinnati, Ohio

The well-known L-F Short and Ultra-Short Wave Generators . . . as well as the famous Bovie Electrosurgical Units will be on display. Other new and interesting physical therapy apparatus and accessories will also be shown and it will be a pleasure to demonstrate this modern equipment to you.

Eli Lilly and Company **Booth No. E-1**
Indianapolis, Indiana

The Lilly exhibit is evidence of the interest of Eli Lilly and Company in the Michigan State Medical Society. Lilly products both old and new will be on display and Lilly representatives will be present to serve physicians in every possible way.

J. B. Lippincott Company **Booth No. A-9**
Philadelphia, Pennsylvania

Among the interesting new works on display at the Lippincott exhibit are Ferguson's "Surgery of the Ambulatory Patient" and Geschickter's "Diseases of the Breast." The new Cooke's "Essentials of Gynecology" and Kampmeier's "Syphilology" will also be featured as well as Strecker's "Essentials of Psychiatry."

M. & R. Dietetic Laboratories **Booth No. C-2**
Columbus, Ohio

M & R Dietetic Laboratories, will display Similac, a food for infants deprived partially or entirely of breast milk; also powdered SofKurd. Mr. F. H. Behncke and Mr. L. A. MacDonald will appreciate the opportunity to discuss the merit and suggested application of these products.

McKesson Appliance Co. **Booth No. C-5**
Toledo, Ohio

The McKesson Appliance Company invites you to come to its booth with your service problems. During the present emergency we advise careful upkeep of all your equipment, and if we can be of any help to you, do not hesitate to call upon us. We will display our equipment as usual.

McNeil Laboratories, Inc. **Booth No. E-8**
Philadelphia, Pennsylvania

A cordial invitation is extended to physicians to visit the McNeil booth where digitalis duo-test and the newer Council accepted products will be shown. Trained members of the staff will be present to explain and discuss these latest additions to the McNeil lines.

Mead Johnson & Company **Booths No. A-1 & A-2**
Evansville, Indiana

"Servamus Fidem" means We Are Keeping the Faith. Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pablum, Oleum Percomorphum, and other infant diet materials. But not all physicians are aware of the many helpful services this progressive company offers physicians. A visit to Booths A-1 and A-2 will be time well spent."

Medical Arts Surgical Supply Co.
Grand Rapids, Michigan **Booths No. B-8, B-10, B-12**

In the Medical Arts Surgical Supply Company we will display Physicians and Surgeons Equipment, including Liebel-Flarsheim Short Waves, Hamilton Furniture, Castle and Pelton Lights and Sterilizers. Medical Arts Laboratories displaying pharmaceuticals manufactured in our own laboratory in Grand Rapids. Mr. R. Johnson in charge.

Medical Case History Bureau **Booth No. A-10**
New York, New York

Representatives will demonstrate patient's history record charts, for both general practice and all specialties; also simple and efficient bookkeeping cards. Of special interest is the unique method by which interesting cases may be cross-indexed according to the disease directly on the patient's history chart.

Medical Protective Company **Booth No. C-16**
Fort Wayne, Indiana

The most exacting requirements of adequate liability protection are those of the professional liability field. The Medical Protective Company, specialists in providing protection for professional men, invites you to confer, at their exhibit, with the representatives there. They are thoroughly trained in Professional Liability underwriting.

Mellin's Food Company **Booth No. E-13**
Boston, Massachusetts

Physicians are cordially invited to call and make inquiries regarding details of composition and application of Mellin's Food. During the seventy-five years of its existence Mellin's Food has so well established itself as to be worthy of consideration in any attempt to arrange nourishment for infants, children and adults.

The Mennen Company **Booth No. B-11**
Newark, New Jersey

The Mennen Company will exhibit their two baby products—Antiseptic Oil and Antiseptic Borated Powder. The Antiseptic Oil is now being used routinely by more than 90 per cent of the hospitals that are important in maternity work. Be sure to register at the Mennen exhibit and receive your kit containing demonstration sizes of their saving and after-shave products.
Our medical representative, Mr. David Storms, will attend this convention.

Merck & Company **Booth No. A-6**
Rahway, New Jersey

War medicine and public health requirements have focused particular attention on the antibacterial properties of the sulfonamides, the nutritional value of the vitamins, and the antisyphilitic value of the Arsphenamines and Tryparsamide.
Literature on all of these important products is available at the Merck booth, where Mr. S. A. Gaffney will be in charge.

Wm. S. Merrell Company **Booth C-10**
Cincinnati, Ohio

The Merrell exhibit will feature clinical data demonstrating the effectiveness of oral vaccination with Oravax in reducing number, severity, and duration of colds, as reported in current medical literature. Oravax offers the physicians an opportunity to contribute man-hours of production to the war effort by protecting colds-susceptible individuals against this greatest cause of disability.

Michigan Medical Service **Booth No. E-20**
Michigan Hospital Service
Detroit, Michigan

Full information will be available about Michigan Medical Service in this featured exhibit of the results of the operation of the doctors' prepaid group medical service program.

There will also be an interesting display of the companion hospital service plan of Michigan Hospital Service.

C. V. Mosby Company **Booth No. B-5**
St. Louis, Missouri

The C. V. Mosby Company extends a cordial invitation to all doctors attending the Michigan State Medical Society convention to visit Booth No. B-5 where they may inspect the many titles which will be displayed. Outstanding new volumes on surgery, orthopedics, heart diseases, ophthalmology, obstetrics and gynecology, x-ray, materia medica and pediatrics will be shown.

The National Livestock and Meat Board
Chicago, Illinois **Booth No. D-19**

The National Live Stock and Meat Board will display a large Nutrition Yardstick, similar to the small one which has just been completed. On this they will show how a diet, based on the pattern set up by the National Nutrition Program, meets all the nutritional requirements. The small Yardstick will be shown, together with charts and literature prepared in the interest of the National Nutrition Program.

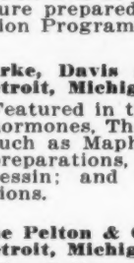
Parke, Davis & Company
Detroit, Michigan **Booths No. C-15, C-17, C-19**

Featured in the Parke-Davis Exhibit will be the sex hormones, Theelin and Theelol; antisyphilitic agents, such as Mapharsen and Thio-Bismol; posterior lobe preparations, including Pituitrin, Pitocin and Pitressin; and various Adrenalin Chloride Preparations.

The Pelton & Crane Company **Booth No. D-7**
Detroit, Michigan

The Pelton & Crane Company will feature office size Autoclave Sterilizers, complete Cabinet Models, and specialized Operating Lights. Be sure to see the Pelton Localite, designed especially for ear, nose, and throat work.

Pet Milk Company **Booths No. E-15, E-17**
St. Louis, Missouri



An actual working model of a milk condensing plant in miniature will be exhibited by the Pet Milk Company. This exhibit offers an opportunity to obtain information about the production of Irradiated Pet Milk and its uses in infant feeding and general dietary practice. Miniature Pet Milk cans will be given to each physician who visits the Pet Milk Booth.

Petrogalar Laboratories **Booth No. B-2**
Chicago, Illinois

Physicians are cordially invited to visit the Petrogalar exhibit where a new and enlightening story on Petrogalar, an aqueous suspension of mineral oil, will be related. Beautifully colored anatomical drawings and new literature may be had upon request from our professional representatives who will be in constant attendance.

Philip Morris & Co. Ltd. **Booth No. A-14**
New York, New York

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

Philosophical Library **Booth No. A-10**
New York City

"War Medicine," the product of the work of more than fifty experts of standing, will be displayed—along with other important publications on the practice of medicine in wartime—at the MSMS Annual Meeting. These symposia satisfy a great need in a rapidly expanding field.

Picker X-Ray Corporation **Booth No. A-11**
New York, New York

Visitors to the Picker X-Ray Corporation's booth will have an opportunity of seeing the United States Army X-ray Field Unit. The unit will be shown set up as packed in standard Army chests as well as a portable. This equipment is designed for radiography, fluoroscopy, superficial therapy and foreign-body localization. The localizer attachment, designed for the purpose of speedy localization of foreign objects in the body under wartime conditions, is of universal interest. There will also be on display a gasoline-electrical generator to supply this Army unit with power independent of community lines.

Procter & Gamble **Booth No. E-14**
Cincinnati, Ohio

"What makes soap mild?"
What are the new, accepted techniques for testing soap? What should you look for in a soap for your patients? Visit Booth No. E-14, where a member of Procter & Gamble's scientific staff will be glad to answer these questions.

Professional Management **Booth No. E-4**
Battle Creek, Michigan

PM

During our **ten years** of service to Michigan doctors we have designed hundreds of **personalized record systems,** as well as maintaining psychologically correct **collection management** right in the clients' own offices. You are cordially invited to make this booth your headquarters during the sessions, ask questions if you like, and help yourself to reprints on **The Business Side of Medicine.**

Randolph Surgical Supply Company
Detroit, Michigan
Booths No. C-12, C-14

An exhibit keyed to the present emergency period will be presented by the Randolph Surgical Supply Company. First aid equipment, surgical instruments and a varied assortment of the latest in diagnostic devices, designed to aid the busy practitioner, will be featured. An interesting group of new medical furniture will also be displayed emphasizing the value of the "extra room" to better facilitate treatment of patients. Representatives in attendance will include Clifford Randolph, Harold Storm, Theodore Ward and Arthur Rankin.

Frank N. Ruslander **Booth No. E-18**
Detroit, Michigan

This exhibit will feature Medical Photography as an aid to the practice of medicine.
It will demonstrate the use of photographs in illustrating textbooks, case histories, etc., and the teaching of students.
A display of color photographs will also be shown.

S. M. A. Corporation **Booth D-22**
Chicago, Illinois

Among the technical exhibits at the convention this year is an interesting new display, which represents the selection of infant feeding and vitamin products of the S.M.A. Corporation. Physicians who visit this exhibit at Booth No. D-22 may obtain complete information, as well as samples, of S-M-A Powder and the special milk preparations—Protein S-M-A (Acidulated), Alerdex and Hypo-Allergic Milk.

W. B. Saunders Company **Booth No. B-1**
Philadelphia, Pennsylvania

This publishing house will have an unusually attractive exhibit in which will be displayed many new books and new editions of particular importance now. They will include the six Official Military Surgical Manuals, the new (1942) Mayo Clinic Volume, Lundy's "Anesthesia," Walters, Gray & Priestley's "Carcinoma of the Stomach," Duncan's "Metabolic Diseases," Johnstone's "Occupational Diseases," Surgical Practice of the Lahey Clinic, Kolmer & Tuft's "Clinical Immunology, Biotherapy and Chemotherapy," Cutler's "Diseases of the Hand," Weiss & English's "Psychosomatic Medicine," Stieglitz's "Geriatrics," and new editions of Beckman's "Treatment," Christopher's "General Surgery," Sollmann's "Pharmacology," Boyd's "Surgical Pathology," and Curtis' "Gynecology."

Schering Corporation **Booth No. B-19**
Bloomfield, New Jersey

All the highly advanced Schering hormones are on display at the Schering exhibit, which is practically a survey of recent endocrine progress. In addition, there are other interesting products such as **Sulamyd** (Sulfacetimide) for the treatment of urinary tract infections, and **Sulfadiazine-Schering,** most effective sulfonamide for pneumonia. Representatives will be present to discuss your problems and distribute interesting and valuable literature and souvenirs.

Scientific Sugars Company **Booth No. D-6**
Columbus, Indiana

Scientific Sugars Company will display Cartose, Hidex, and the Kinney line of nutritional products. A new preparation of interest to physicians will be featured.

Sharp & Dohme **Booth No. D-21**
Philadelphia, Pennsylvania

Sharp & Dohme will have their modern display at Booth No. D-21, featuring "Lyovac" Normal Human Plasma, other "Lyovac" biologicals and biological specialties. There will also be on display pharmaceutical specialties including the new Liquid "Digitol" and Tablets "Digitol" which are clinically standardized on humans, "Delvinal" Sodium, "Propadrine" Hydrochloride products, "Rabellon," "Depropanex," and "Prohexinol." A cordial welcome awaits all visitors.

Smith, Kline & French Laboratories
Philadelphia, Pennsylvania **Booth No. B-4**
Smith, Kline & French Laboratories are displaying Benzedrine Sulfate Tablets, Benzedrine Inhaler and Pentnucleotide. A representative of the S.K.F. Professional Service Department will be glad to discuss the uses of these Council-accepted preparations with physicians visiting the exhibit.

E. R. Squibb & Sons **Booth No. C-22**
New York, New York
The Squibb Exhibit will feature a number of new Chemotherapeutic Specialties, as well as the latest additions to their line of Vitamin, Glandular and Biological Products. Well informed Squibb representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

Frederick Stearns & Company
Detroit, Michigan **Booths No. C-4, C-6**
Doctors are cordially invited to visit our attractive convention booths, to view and discuss outstanding contributions to medical science developed in the Scientific Laboratories of Frederick Stearns & Company.
Our professional representatives will be pleased to supply all possible information on the use of such outstanding products as Neo-Synephrin Hydrochloride for intranasal use, Amino Acids for perenteral protein feeding, Mucilose for bulk and lubrication, Ferrous Gluconate, Potassium Gluconate, Gastric Mucin, Susto, Trimax, Appella Apple Powder, Nebulator with Nebulin A, and our complete line of Vitamin products.

Wall Chemicals Corporation **Booth D-5**
Chicago, Illinois
Wall Chemicals Corporation, a division of the Liquid Carbonic Corporation, will have on display a quantity of compressed gas anesthetics and resuscitants. There will also be a complete line of oxygen therapy equipment including the "Walco" oxygen humidified, for the nasal administration of oxygen, and the "Walco" oxygen face mask.

Westinghouse X-Ray Company, Inc. **Booth D-15**
Detroit, Michigan
A translite exhibit of the newest developments in x-ray equipment.

White Laboratories, Inc. **Booth No. D-18**
Newark, New Jersey
White's prescription vitamins will be presented for your consideration. Here you may obtain the most recent findings concerning indications for vitamin therapy, properties of the various vitamins, and clinical data regarding White's Cod Liver Oil Concentrate and other Council-Accepted vitamin products.

Winthrop Chemical Company, Inc. **Booth No. C-8**
New York, New York
Winthrop Chemical Company, Inc., extends a cordial invitation to every member of the Michigan State Medical Society to visit its booth where representatives will gladly discuss the latest preparations made available by this firm. You will receive valuable booklets dealing with anesthetics, analygesics, antirachitics, antispasmodics, antisyphilitics, diagnostics, diuretics, hypnotics, sedatives, and vasodilators.

John Wyeth & Brother **Booths No. A-3, A-4**
Philadelphia, Pennsylvania
You are cordially invited to visit the John Wyeth & Brother Exhibit where its new Hemo-Guide, a modern aid to the diagnosis of anemia, will be on display.
Representatives will be pleased to answer questions or explain features of any of the Wyeth pharmaceutical specialties.

Zimmer Manufacturing Company **Booth No. E-5**
Warsaw, Indiana
Zimmer Manufacturing Company will exhibit its complete line of fracture equipment with C. A. Fisher in charge of the display. Notable improvements in bone fixation devices and instruments will be shown at this meeting.

In the Exhibit, order equipment generously at this time, because curtailment of civilian goods production will be felt seriously in a few months.

THE MICHIGAN POSTGRADUATE PROGRAM FOR GRADUATES IN MEDICINE, AUTUMN 1942

The Michigan State Medical Society, in coöperation with the University of Michigan Medical School, Wayne University College of Medicine, the Michigan Department of Health, and the Wayne County Medical Society, announces the extramural postgraduate courses for the autumn, 1942.

Centers	Dates
Ann Arbor	October 8, November 12
Battle Creek	October 6 and 21
Flint	October 13 and 27
Grand Rapids	October 12 and November 10
Lansing	(dates to be announced later)
Mt. Clemens	(dates to be announced later)
Saginaw	October 13 and November 10
Traverse City	October 14 and November 11

Subjects

First Day

4:00 P. M. Surgery of the Ambulatory Patient.
The three methods of producing local anesthesia. The management of varicose veins and ulcers; excision of wens, warts, moles, cysts, birthmarks, and precancerous lesions. Minor infections of hand. Biopsies. Furuncles. Minor amputations. Ingrown toenail. Hydrocele. Circumcision. Fractures and sprains. Illustrated.

5:00 P. M. The Modern Treatment of Cardiac Failure.
The diagnosis of the normal heart. An explanation of the symptoms and signs of early heart failure in middle life, the methods of management of the potential cardiac, and cardiac decompensation. Dosage and indications for drugs.

6:15 P. M. Dinner.

7:00-9:00 P. M. The "Acute Abdomen."
Panel discussion by surgeon, gynecologist, and pediatrician.

Second Day

4:00 P. M. Psychosomatic Medicine.
The meaning of psychosomatic medicine in general practice. Gastro-intestinal disorders, cardiovascular symptoms, glandular disturbances, essential hypertension. The purpose and kind of therapy used.

5:00 P. M. The Industrial Dermatoses and Fungus Disease of the Skin.
Recognition and treatment.

6:15 P. M. Dinner

7:00-9:00 P. M. The Accidents and Complications of the Newborn Period, and Postpartum Care.
Panel discussion by a pediatrician and an obstetrician.

Intramural Courses

Nutritional and Endocrine Problems.....November 2-5, inclusive
University Hospital, Ann Arbor

Electrocardiograph Diagnosis.....November 16-21, inclusive
University Hospital, Ann Arbor

Urology.....November 30-December 4, inclusive
University Hospital, Ann Arbor

The detailed program will be mailed to the physicians of the State early in the autumn.

For further information, address

Committee on Postgraduate Education
Michigan State Medical Society
Room 2040, University Hospital
Ann Arbor, Michigan

Announcement

The Neuro-Psychiatric Institute of the Hartford Retreat announces the following appointments to its professional and assisting staffs:

EXECUTIVE OFFICERS

Chairman, Board of Managers, and Psychiatrist-in-Chief
C. Charles Burlingame, M.D.
Secretary, Board of Managers, and Assistant to Psychiatrist-in-Chief
Stella H. Netherwood, R.N.
Assistants to Psychiatrist-in-Chief
Barbara M. Adam
Mildred E. LaBombard
Adelaide L. Ray

MEDICAL STAFF

Psychiatrist-in-Chief
C. Charles Burlingame, M.D., F.A.C.P.
Associate Psychiatrists
Leslie R. Angus, M.D.
H. Ryle Lewis, M.D.
Senior Psychiatrists
Ralph M. Stolzheise, M.D.
William G. Young, M.D.
Edward L. Brennan, M.D.
Percy L. Smith, M.D.
John W. Kinley, M.D.
Psychiatrists
Paul L. Phillips, M.D.
Robert L. Wagner, M.D.
Thomas G. Peacock, M.D.
Herbert M. Bowlby, M.D.
Charles E. Vigue, M.D.
Fellows in Psychiatry
A. Laurence Hessin, M.D.
Margaret D. Gleason, M.D.
Diodato Villamena, M.D.
Psychologist
Blake D. Prescott, B.A., M.A., M.D.
Research Associate in Psychiatry
John M. Cotton, M.D.
Research Associates in Electroencephalography
Herbert H. Jasper, A.B., M.A., Ph.D., D.ésSc.
Wladimir Theodore Liberson, Ph.D., M.D.
Oculist
Harry St. C. Reynolds, M.D.
Gynecologist
Louis F. Middlebrook, M.D.
Roentgenologist
Gilbert W. Heublein, M.D.
Dentist
George B. Odlum, D.M.D.
Physicians, Employees' Health Service
William A. Wilson, M.D.
Joseph F. Jenovese, M.D.

ASSISTING PROFESSIONAL STAFF

General Director of Nursing
Elsie C. Ogilvie, R.N.
Director of Nursing
Mary E. Curtis, B.N., R.N.
Director of Nursing Education and Associate Director of Nursing
Helen M. Roser, B.A., M.A., R.N.
Secretaries to Psychiatrist-in-Chief
Rosalie M. Carroll, A.B.
Edna King
Secretary, Executive Offices
Kathryn M. Haverstick, A.B.
Correspondence Secretary
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Mary V. Cronin, R.N.
Associate Introductor
Josephine LiVecchi, B.A.
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Assistant Director of Nursing Education
Martha D. Adams, B.A., M.N., R.N.
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Regina A. Driscoll, B.A., R.N.
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Isabel McKenzie, R.N.
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Margaret F. Sheller, R.N.
Chief of Laboratories
Marjorie A. Darken, B.S., M.A.
Assistant Psychologist
Margaret Fickel, B.A.
Laboratory Technician
Elizabeth Carpenter, M.T.
X-ray Technicians
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Dorothy Mercer, B.A.
Pharmacist
Ella Wohlman, Ph.G.
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Mary B. Jackson, B.A., M.A.
Research Librarian, Jelliffe Library
Katherine Malterud, B.A., New York State Library School
Special Dietitian
E. Ruth Breen, Lesley School
Oral Hygienist
Josephine Sagan, Temple University School of Oral Hygiene
Chief, Medical Record Room
Katherine Sheehy, Eastman Business College
Assistant Chief, Medical Record Room
Norma Hill
Chief, Dietary Department
Armand L. Pelletier
Special Assistant
William M. Jennings
Comptroller
Henrietta L. Hills
Resident Auditor
Albert W. Stevens
Chief, Purchasing Department
Helen R. Schait, Certificate Pratt Institute
Personnel Manager
C. Pauline Kline
Employe Instructor
Anne F. Browne, R.N.
Employment Manager
Elizabeth B. Stephenson, B.A.
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Theresa R. Smith, B.S.
Assistant Manager of Graduate Clubs
Mollie Burke

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Alice O'Dea, R.N.
Consultant to Psychiatrist-in-Chief
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Social Director
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Instructor, University Extension Courses
Eileen Owens, B.S.
Instructor, University Extension Courses
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Ward E. Duffy, B.A., B.Lit., Managing Editor, Hartford Times
John W. Colton, Editorial Staff, Hartford Times
Instructors, Physical Education
Frank Kubin, A.B.
Merritt Garland, A.B.
Olga C. Boryk
Ann Arnold, B.S.
Instructor, Painting and Modelling
Elizabeth W. Newhall, B.S.
Instructor, Appreciation of Art
Alexander Crane, Berkshire School of Art
Instructor and Modiste
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Instructor, Bridge
Theodosia Van Norden Emery, Master of Bridge and Director Culbertson National Studios
Instructors, Dancing
Doris Gibbons, Russian School of Ballet Dancing
Nancy R. Ward, Arthur Murray School of Dancing
Senior Instructors, Arts & Crafts
Bertha M. White, School of Handicrafts and Occupational Therapy, Boston
Jane M. Cable, School of Handicrafts and Occupational Therapy, Boston
Instructor, Arts and Crafts
Ella A. Hillerstrom, School of Handicrafts and Occupational Therapy, Boston
Instructor, Manual Arts
Dorothy Badger Wells, Woodbury Training
Instructor, Dietetics
Helen L. Ronan, Pratt Institute School
Instructor, Music Appreciation
Paul Vellucci, Director Hartford School of Music
Instructors, Music, Organ & Piano
M. Patricia Powers, B.S.
Maxine McCury, Bachelor of Music
Instructor, Cello
Katherine H. Howard, Royal School of Music, Berlin
Instructors, Violin
Ruth Ray, Hartford School of Music
Emma S. Miller, Conservatory of Music, Leipzig, Germay, Yale School of Music
Instructor, Voice
Josephine Simpson Koch, Yale School of Music
Instructor, Braille
Ethel M. Law, B.Ed.
Instructor, Lip Reading
Eveline Dunbar, Clark School, Training Class for Teachers
Instructors, Beauty Culture
Dorothy L. Allen, Schultz Training School
Helen K. Stevens, Harper Method Training
Personal Shopper
Eleanor B. Lawrence
Shop Manager
Leonie Christian
Chief Physiotherapist
Charles C. Canivan, R.N., P.T.
Physiotherapists
Ruth E. Manion, R.N., P.T.
Virginia M. Smith, R.N.
Daniel Thomson
Orchestras
Institute's Chamber Music Orchestra
Lucas' Orchestra
Jones' Music Masters

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MICHIGAN'S DEPARTMENT OF HEALTH

H. ALLEN MOYER, M.D., Commissioner, Lansing, Michigan

NEW OFFICE BUILDING

New Michigan Department of Health offices in a recently completed administration building on the northwest edge of Lansing give Michigan the most complete health center in the United States.

Erected with $135,000 of state funds, supplemented by WPA grants of labor and materials, the four-story structure provides accommodations for eleven of the Department's twelve bureaus. The Bureau of Laboratories is across Dewitt road from the administration building.

Plans for the new building, as originally drafted in 1938, contemplated the erection of a two-story and penthouse structure, to be financed by an original $50,000 appropriation voted by the 1937 Legislature, plus WPA aid. Ground was broken in May, 1940. A second appropriation of $85,000 was approved in 1941 for completion of the larger structure.

Completion of the building has been slowed in recent months by the impact of war, difficulty having been experienced in getting needed materials and in hiring skilled labor.

WAR COMPLICATES TUBERCULOSIS PROBLEM

War is complicating the problem of tuberculosis control in Michigan. Routine examinations of the armed services are uncovering hitherto unsuspected cases. The intensified case finding program of the Michigan Department of Health is disclosing others. The state's twenty-three approved sanatoria already are practically filled. Several physicians closely identified with tuberculosis work in Michigan are in uniform. Others are to follow them.

Reduction of the staff at University Hospital, Ann Arbor, has stopped the transfer there for special treatment of patients from the state sanatorium at Howell. A University Hospital surgeon visits the Howell institution instead. In some instances, the commissioning of sanatoria directors may result in the closing of the institutions. Some shifting of patients may be unavoidable.

Already in the armed services, or soon to be commissioned, are Dr. Roger J. Hanna, superintendent of the Jackson county sanatorium; Dr. G. L. Leslie, formerly medical superintendent of the Michigan state sanatorium at Howell; Drs. J. C. Day and William M. Tuttle, chest surgeons for the hospitals of the Detroit Department of Health; and Dr. F. M. Doyle, assistant medical director of the Pine Crest sanatorium at Oshtemo.

NEW HEALTH REGULATIONS

Fitting of shoes to stockingless feet and of foundation garments to women without underclothing is prohibited by action of the State Council of Health which seeks to prevent the spread of skin disorders.

Adopting regulations which have the effect of law, the Council through the Michigan Department of Health is notifying members of the Michigan State Shoe Dealers Association and the Michigan Retail Dry Goods Association that signs notifying the public of the prohibitions must be posted in conspicuous places in their establishments where this merchandise is sold.

As added protection for the public against the spread of athlete's foot infection, proprietors of bowling alleys and skating rinks are being notified that the renting of shoes is henceforth prohibited.

CHILDREN OF MIGRANT WORKERS IMMUNIZED

Immunizing against diphtheria and smallpox of an estimated 10,000 children of migrant workers in sugar beet growing areas in 16 Michigan counties has been completed.

This was the first time that immunization of the children of migrant workers has been undertaken in Michigan. The work was done by practicing physicians and local health officers. The Michigan Department of Health and beet sugar producing organizations coöperated.

PEAK MONTHS FOR POLIO

Emphasizing that outbreaks of poliomyelitis occur during the summer and early fall, Commissioner Moyer, in recent newspaper releases, called upon parents to be on the watch for the first signs of the disease. He stressed the necessity for prompt diagnosis followed by continued medical supervision in the treatment of polio.

Fifteen cases of the disease were reported to the Michigan Department of Health during the first half of this year. Last year fourteen cases were reported during the same period, but in the last six months of 1941 the total was increased by 256 cases with twenty-one reported in July, sixty in August, ninety in September and eighty-five in the remaining three months.

Department of Health records for other years also show upturns in the number of poliomyelitis cases in July, August and September and in some years outbreaks of the disease continued through October indicating that these are the months when parents should be particularly alert for the first danger signals.

LETTERS TO THE EDITOR

Lansing, Michigan
August 19, 1942

Roy H. Holmes, Editor
Michigan State Medical Society
888 First Street
Muskegon, Michigan

Dear Dr. Holmes:

We are enclosing Pamphlet No. 56, received from the government, regarding the Prescribing and Dispensing of Narcotics Under the Harrison Narcotic Law.

Of late we have been receiving a great number of inquiries on this subject and are wondering if you would print the outlined part of this law in your JOURNAL so that the dispensers of narcotics would be able to have a copy of this ruling.

Very truly yours,

L. A. WIKEL, Director of Drugs
and Drug Stores
Michigan Board of Pharmacy

PAMPHLET NO. 56

Prescribing and Dispensing of Narcotics Under Harrison Narcotic Law

The following outline of procedure to be observed in prescribing and dispensing narcotic drugs is issued for the guidance of registrants under the Harrison Narcotic Law, and others concerned. This pamphlet is intended to be advisory only and to anticipate and answer questions arising in the minds of practitioners concerning the law and regulations governing the prescribing and dispensing of narcotic drugs as interpreted by the courts.

The regulations governing this subject are contained in article 167, Regulations No. 5, and read as follows:

ART. 167. *Purpose of issue.*—A prescription, in order to be effective in legalizing the possession of unstamped narcotic drugs and eliminating the necessity for use of order forms, must be issued for legitimate medical purposes. The responsibility for the proper prescribing and dispensing of narcotic drugs is upon the practitioner, but a corresponding liability rests with the druggist who fills the prescription. An order purporting to be a prescription issued to an addict or habitual user of narcotics, not in the course of professional treatment but for the purpose of providing the user with narcotics sufficient to keep him comfortable by maintaining his customary use, is not a prescription within the meaning and intent of the act; and the person filling such an order, as well as the person issuing it, may be charged with violation of the law.

Detroit, Michigan
August 5, 1942

Editor, Journal MSMS
Muskegon, Michigan

Dear Sir:

Herewith is a copy of a letter I have written to J. A. Bechtel of the Wayne County Medical Society. I think this ought to have publicity among all the doctors.

Thanking you, I am

Sincerely yours,

JOHN L. LOVETT, General Manager
Michigan Manufacturers' Association

* * *

August 5, 1942

James A. Bechtel, Exec. Sec'y
Wayne County Medical Society
4421 Woodward Avenue
Detroit, Michigan

My dear Mr. Bechtel:

I am sure that all of us want to do everything we possibly can to win this war, and win it soon. It has been suggested to the Michigan Manufacturers' Association that the members of the medical society could be helpful in keeping men and women on the production jobs in the plants.

Absenteeism, especially among women, is tremendously high in some plants. And it is reported that some physicians are coöperating with the employes in promoting absenteeism rather than keeping the employes on production.

One plant reports as high as 20 per cent of its women employes being absent every day on excuses furnished by physicians who say the employes need rest or are suffering from some temporary ailment. A little superficial checking has revealed that in some cases at least the physician's diagnosis was not justified.

I appreciate that some physicians may want to coöperate with their patients, but where they are contributing to a high percentage of absenteeism, they are contributing to a slowdown of production.

I am writing you in the belief that all physicians are interested in keeping everybody on the job if they can. Industrial management would like the coöperation of all physicians in reducing absenteeism due to illness, and I am sure that you can be of great assistance to us in that respect. I am sure that no thoughtful physician would in any way want to hamper war production.

Thanking you, I am

Sincerely yours,

JOHN L. LOVETT, General Manager
Michigan Manufacturers' Association

IN MEMORIAM

Angus L. Cowan of Detroit was born September 10, 1865, in Mayfair, Middlesex County, Ontario. He was graduated from the Detroit College of Medicine and Surgery in 1891. After graduation he practiced in Granby, Missouri, for nine years. In 1900 he returned to Detroit and engaged in general practice until his illness during the past year forced him to retire. Doctor Cowan had been a member of Wayne County Medical Society since 1906 and was made an Honorary Member, February 7, 1941. He was elected to Emeritus Membership of the Michigan State Medical Society, September 16, 1941. He died June 21, 1942.

Theodore S. Crosby of Ironwood was born October 24, 1879, in Corry, Pennsylvania, and was graduated from the Baltimore College of Physicians and Surgeons in 1905. He then studied in Berlin and Paris. After spending a year in private practice at Mt. Clemens, Doctor Crosby was employed for six years as head surgeon for the Barnum and Bailey circus. Later, he became house physician in a large New York hotel and then took a year of postgraduate work in the New York General Hospital. Doctor Crosby came to Wakefield and practiced there for fourteen years, not including the time spent in the army during the first World War. He was in service two years and overseas three months, being discharged as a major in the reserve corps. Doctor Crosby died at the Veterans Hospital at Milwaukee, July 24, 1942.

Carl C. McClelland of Detroit was born in the year 1879 in Jefferson, Ohio. After graduating from State Teachers College at Ypsilanti he became Principal of the Eaton Rapids High School, then the Benton Harbor High School, and late Superintendent of the Benton Harbor Schools. In 1906 he entered the University of Michigan Medical School where he obtained his degree in 1910. After a few months' practice in Detroit he took postgraduate work in the Eye and Ear Hospital of London and also in Vienna. Since 1912, Doctor McClelland has been a member of the staff of Grace Hospital where he was Chief Ophthalmologist from 1927 to 1939. He died July 30, 1942.

To go about your work with pleasure, to greet others with a word of encouragement, to be happy in the present and confident in the future—this is to have achieved some measure of success in living.—EDWIN OSGOOD GROVER.

✶ COUNTY AND PERSONAL ACTIVITIES ✶

Roy Herbert Holmes, M.D., Editor of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, received the commission of Major in the Medical Corps of the U. S. Army and left for Fort Sam Houston, San Antonio, Texas, on September 4.

* * *

The American College of Surgeons will hold its 1942 Clinical Congress in Cleveland November 17 to 20, at the Cleveland Public Auditorium.

* * *

M. R. Murphy, M.D., has resumed his practice in Cadillac after an honorable discharge from the Army because of a knee injury.

* * *

In the American Medical Association Journal for August 8, 1942, R. H. Freyberg, M.D., of Ann Arbor, published his "Treatment of Arthritis with Vitamin and Endocrine Preparations."

* * *

"Hospital Standards for Crippled and Afflicted Children" as approved by the Michigan Crippled Children Commission on June 3, 1942, are available by writing Carleton Dean, M.D., Director of the Commission, 458 Hollister Building, Lansing.

LeMoyne Snyder, M.D., Lansing, has been appointed Deputy Chief of Emergency Medical Service, Michigan Council of Defense, to take the position left vacant by Lloyd H. Gaston, M.D., who has been commissioned as a Surgeon in the Reserve Corps of the USPHS.

* * *

The eighth annual meeting of the Mississippi Valley Medical Society will be held at Quincy, Illinois, September 30 and October 1, 2. The second annual meeting of the Mississippi Valley Medical Editors' Association will be held September 30 in Quincy.

* * *

Massachusetts Medical Service.—Following enabling legislation enacted in May, 1942, State Commissioner of Insurance Charles J. Harrington recently signed the papers granting a charter to "Massachusetts Medical Service," a statewide system of prepaid medical care sponsored by the Massachusetts Medical Society.

* * *

Primary Election—September 15.—This election is important to physicians because members of the Legislature (including the Lieutenant-Governor) will be nominated. The free practice

of medicine in Michigan depends to a startling degree on the Michigan State Legislature. Vote for friends of Medicine at the Primary, September 15.

* * *

Tire Rationing.—Of the 27 million cars in the United States, seven million will not be running by December 31—either broken down or their tires used up. How to keep the remaining twenty million running is a big problem as the average set of tires in all the country today has only 10,000 miles of remaining wear—thus remaining mileage will be reduced to only 4,000 by January 1, 1942.

* * *

"The Physician's liability for negligence of employes and servants arises from any act of negligence performed during and within the scope of their employment; but liability for negligent acts of agents is predicated only upon those derived as the result of delegated powers and performed within the scope of the agency thus established."—CARL SCHEFFEL, M.D., LL.B., The Utilization of Agents in the Practice of Medicine and Surgery.

* * *

A "First-Aid Syllabus" was presented before the medical personnel of the Casualty and First-Aid teams of the Flint Emergency Medical Services at St. Joseph's Hospital June 2. A record of the course was compiled by W. H. Marshall, M.D., Coördinator of Emergency Medical Education, and printed and distributed by the Genesee County Medical Society. The syllabus is a 24-page mimeographed edition, and makes very interesting and concise reading.

* * *

Diagnostic Laboratory Service for Weil's Disease.—The Bureau of Laboratories of the Michigan Department of Health has perfected the methods for laboratory aid in the diagnosis of spirochetal jaundice known as Weil's disease. The laboratories will receive specimens hereafter from physicians and health officers for that purpose. Blood specimens which are collected and shipped in the same manner as those for the Kahn test will be satisfactory for the examinations.

* * *

The new Venereal Disease Control Law, passed by the Michigan Legislature in February, 1942,

Advise the editor of your newspaper that you will be in Grand Rapids for the 77th annual meeting of the Michigan State Medical Society, September 23, 24, 25, 1942.

Bring your MSMS or AMA membership card, to facilitate registration.

The scientific and technical exhibit of 116 spaces is an educational opportunity of unusual interest and scope.

Remember—September 23, 24, 25, Civic Auditorium, Pantlind Hotel, Grand Rapids.

authorizes Health Officers and their deputies to conduct examinations of all persons arrested and charged with committing acts of prostitution and also to forcibly hospitalize infected individuals who refuse to comply with public health laws and regulations. Over twelve recalcitrant individuals have already been committed to institutions for treatment which they had refused, on authority of Act 6 of 1942.

* * *

The Polio Consultation Service of the Michigan Crippled Children Commission is available in 1942 for cases or suspected cases of polio in children from birth to twenty years of age (where the family is financially unable to provide this service and where consultation is not furnished locally).

The family physician should contact the Secretary of the county medical society, who has full information on the manner of obtaining a consultation.

* * *

Specimen containers urgently needed.—All physicians are requested to collect and return to the Bureau of Laboratories of the Michigan Department of Health, the tin screw-capped specimen containers. We can purchase no more of these containers. The postal regulations require that specimens sent to the laboratories must be mailed in double walled containers. These containers are needed urgently by our laboratories. Please collect all such containers as soon as possible and return them to the laboratories, Lansing, Michigan.

* * *

Clarence W. Muehlberger, Ph.D., lecturer on Toxicology at the University of Michigan Medical School and Director of the Crime Laboratory maintained by the State Department of Health and the State Police, has joined the staff of Captain Donald S. Leonard, State Commander of the Citizens Defense Corps, as State Gas Consultant. Dr. Muehlberger is one of the guest-essayists on the MSMS program, in the Section on Radiology, Pathology and Anesthesia, Friday morning, September 25 (see page 780).

* * *

MSMS Committee Chairmen now in military service:

H. S. Collisi, M.D., Grand Rapids, Public Relations Committee.

Shattuck W. Hartwell, M.D., Muskegon, MSMS Distribution of Medical Care Committee.

M. R. Kinde, M.D., Battle Creek, Tuberculosis Control Committee.

Richard M. McKean, M.D., Detroit, Heart and Degenerative Diseases Committee.

J. Duane Miller, M.D., Grand Rapids, Industrial Health Committee.

A. R. Woodburne, M.D., Grand Rapids, Syphilis Control Committee.

Taxation on Accounts Receivable.—The U. S. House of Representatives has completed action on the Revenue Act of 1942 (H.R. 7378) and has made an important change in connection with the taxation of Accounts Receivable on the books of a taxpayer at the time of death. Heretofore such accounts have been includable as income for the year of death, even though the taxpayer may have heretofore been on a cash receipts and disbursements basis.

Under the Revenue Act of 1942, such outstanding accounts will not be includable as income for the year of death of the taxpayer but will be subject to tax as collected, the tax being paid by the person who actually receives the sums collected.

Incidentally, the provision is made whereby the estate of taxpayers that have in past years suffered by reason of the unjust operation of the present law may obtain refunds.

* * *

Special Membership in the MSMS.—County Society secretaries have been invited to submit to the MSMS, NO LATER THAN SEPTEMBER 10, *names of any physicians for whom special memberships* (Emeritus, Retired, Associate) in the State Society *will be sought* at the 1942 House of Delegates' meeting in Grand Rapids. Certification of these names permits the Executive Office to ascertain in advance of the meeting whether the qualifications of each physician meet the requirements set by the MSMS Constitution.

Any proposed changes in the MSMS Constitution and By-laws, to be recommended at the 1942 House of Delegates' meeting should be referred to the Special Study Committee on Constitution and By-laws, no later than September 10. This courtesy will allow the Committee sufficient time to study the proposal in its relation to other provisions of the MSMS Constitution and By-laws.

* * *

"Ubiquitous Hosts."—The following Grand Rapids physicians have agreed to act as hosts to the thirty-two guest essayists who will appear on the State Society program of September 23, 24, 25 in Grand Rapids. The Society officers appreciate the valuable assistance of these ubiquitous hosts in helping to make successful the 1942 annual meeting: A. J. Baker, M.D., Wm. L. Bettison, M.D., James S. Brotherhood, M.D., Wm. J. Butler, M.D., Ward L. Chadwick, M.D., Burton R. Corbus, M.D., Fred Currier, M.D., R. H. Denham, M.D., Ralph Fitts, M.D., David Hagerman, M.D., Ruth Herrick, M.D., A. Morgan Hill, M.D., Robert Laird, M.D., G. H. Mehney, M.D., V. M. Moore, M.D., L. Paul Ralph, M.D., H. C. Robinson, M.D., L. J. Schermerhorn, M.D., Ferris Smith, M.D., A. B. Thompson, Jr., M.D., Wm. R. Torgerson, M.D., H. J. VanBelois, M.D., Henry J. VandenBerg, M.D., Jay R. Venema, M.D., Robert Laird, M.D., G. H. Mehney, M.D., of Grand Rapids.

Monitors for the Section Meetings as well as for the Discussion Conferences, to be held on the occasion of the 77th Annual Meeting of the Michigan State Medical Society in Grand Rapids, include:

John Besancon, M.D., Detroit; Leon C. Bosch, M.D., Grand Rapids; Russell deAlverez, M.D., Ann Arbor; Joseph DePree, M.D., Grand Rapids; Horace L. French, M.D., Lansing; Lewis Gomon, M.D., Saginaw; Faith W. Hardy, M.D., Grand Rapids; W. B. Harm, M.D., Detroit; Ruth Herrick, M.D., Grand Rapids; C. L. Hess, M.D., Bay City; J. W. Holcomb, M.D., Grand Rapids; Paul Kniskern, M.D., Grand Rapids; Harry Kok, M.D., Benton Harbor; Eugene Lange, M.D., Muskegon; F. H. Lashmet, M.D., Petoskey; V. S. Laurin, M.D., Muskegon; John W. Littig, M.D., Kalamazoo; M. C. Loree, M.D., Lansing; J. L. McKenna, M.D., Grand Rapids; K. W. A. McLeod, M.D., Lapeer; Gayle H. Mehney, M.D., Grand Rapids; Richard C. Norton, M.D., Battle Creek; D. J. O'Brien, M.D., Lapeer; O. W. Pickard, M.D., Detroit; C. S. Ratigan, M.D., Detroit; Torrance Reed, M.D., Grand Rapids; Arthur E. Schiller, M.D., Detroit; L. J. Schermerhorn, M.D., Grand Rapids; W. J. Scott, M.D., Grosse Pointe; Carl Snapp, M.D., Grand Rapids; John Volderauer, M.D., Kalamazoo; H. B. Zemmer, M.D., Lapeer.

The work of the monitor is important to the success of the Discussion Conferences and of the Section Meetings. The physicians so serving are thanked for their contribution of valuable time and effort.

* * *

PHYSICIANS IN CONTINENTAL U. S.
(JANUARY 31, 1942)

Total Number			176,200
Ages: Under 36	42,700		
36-44	38,200	Total under 45	80,900
45-54	31,900	Total under 55	112,800
55 and over	63,400		
Scope of Practice			
General Practice			86,000
Full or Partial Specialists			90,200
Full Specialists (38,800); Partial Specialists (51,400).			
Auspices of Practice			
Private Practice			141,500
(Some with part-time salaries)			
Full-time Salaried Physicians			33,500
Hospital Positions			16,500
Including Administrators (3,100); Residents, Asst. Res. and Fellows (6,200); Interns (7,200).			
Government Positions			9,800
Federal (6,100); State (1,400); Local (2,300)			
Academic Positions (Teaching and Research)			3,700
Industrial Positions			2,300
Other Executive Positions			1,200

—*Jour. AMA*, June 20, 1942.

* * *

Military Membership in MSMS.—Military membership in the State Society is granted to active members of the MSMS *in good standing* with State Society dues paid for a full year, who are serving their country in the armed forces of the United States; they will be relieved of paying MSMS dues during the period of such active service if recommended by the county medical society on special military member-

ship blanks available from the MSMS Executive Office.

Physicians who have *not* paid 1942 MSMS dues *on or before April 1, 1942,* are suspended, according to the MSMS By-laws, and therefore are not in good standing and are not eligible for Military Membership in the State Society and for the remission of dues during the period of their service in the armed forces. If any of your members fall into this classification, contact them to pay their dues for the current year so that they may be accorded Military Membership and, upon their return home, one year's membership without the payment of MSMS dues.

* * *

The Michigan Chapter of the American College of Chest Physicians will hold its autumn meeting in the Pantlind Hotel, Room 222, on the afternoon and evening of September 22, 1942.

The following program has been arranged:

Afternoon Session—2:30 P.M.

Norman Clarke, M.D., Presiding

1. "End Results in 100 Pneumothorax Cases"—Paul Chapman, M.D., Detroit
2. "Bronchoscopic Examination as an Aid in the Early Diagnosis of Cancer of the Lung"—John R. Birch, M.D., Detroit
3. "Diagnostic Importance of Pleural Effusions in Cancer of the Lung"—William P. Chester, M.D., Detroit
4. "Cardiopulmonary Disease"—Leslie F. Colvin, M.D., Detroit.

Dinner—6:30 P.M.

William A. Hudson, M.D., Master of Ceremonies

1. Physiology of Respiration"—Kenneth A. Wood, M.D., Detroit
2. "General Discussion of Thoracic Trauma"—Jerome R. Head, M.D., Chicago, Illinois.

A very cordial invitation is extended to all members of the MSMS to attend and enter into the discussion.

Officers of the Michigan Chapter of the American College of Chest Physicians are Willard B. Howes, M.D., Detroit, president; S. M. Gelenger, M.D., Flint, vice president; and Donald MacInnis, M.D., Pontiac, secretary-treasurer.

* * *

Military Service and its effect on policies of group hospitalization.—Many subscribers have requested information as to what effect military service will have on their hospital service certificates. Michigan Hospital Service, through its Director, John R. Mannix, announces that those individuals called to service will be able to continue the coverage for their dependents while in service. Says Mr. Mannix:

"Our policy will be as follows:

"1. If the subscriber holds an individual contract, his application will be held in a suspense file until after he returns from service, at which time he may continue the service at the regular individual rate.

"2. If the subscriber holds a man and wife contract,

he may continue the service for his wife during his period of military service at the individual person's contract rate. The contract may be changed back to a man and wife certificate when he returns from service.

"3. If the subscriber holds a family contract and has one child, he may continue the service for his wife and child at the regular rate for two persons (same as the man and wife rate). The contract may be changed back to a family contract at the time he leaves the service.

"4. If the subscriber holds a family contract and has two or more children, the contract may be continued at the regular family rate.

"In all cases the subscriber may secure hospital protection for himself by applying to our office within thirty days after he returns from military service."

* * *

Afflicted-Crippled Children.—(a) Prompt and correct billing: while the penalty imposed on hospitals for delayed reporting of admittances of Afflicted-Crippled Children does not affect billing for doctors' services, *it is the physician's responsibility to see that the hospital sends a correct bill for his services to the Commission.* The physician should submit his statement on his own billhead to the hospital before the end of the calendar month in which the service took place. *Billings delayed over 60 days after the patient leaves the hospital will not be paid.*

(b) In Afflicted-Crippled Children cases, where physicians do not accept the surgical or medical fee of the Commission, they must make previous arrangements with the patient IN WRITING, and a notification of the fact that such arrangements have been made must be sent to the Commission so that both patient and the Commission are informed that the Michigan Crippled Children Commission medical fees will not be accepted by the doctor.

(c) Bills for dangerous contagious diseases are payable by the county. If they are sent to the Commission they will be charged back to the county.

(d) The Commission will accept billing for services of only one physician on each case, with the following exceptions:

(1) when consultation is necessary;

(2) when the services of a surgeon who is not the attending physician are required, the attending physician will be allowed fees for bedside care in accordance with schedule of fees prior to operative date, and the surgeon will be allowed the surgical fee, to include after-care for a 30-day period.

$200 shall be the maximum paid for medical and surgical fees for any one patient in any one year, under Act 158 of the P.A. of 1937, and under Act 283 of the P.A. of 1939.

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

THE CLARKS. An American Phenomenon. By William D. Mangam. With an Introduction by Edward Alsworth Ross, Professor of Sociology, University of Wisconsin. New York: Silver Bow Press, 1941. Price: $2.50.

This is a biographical sketch of the Clark family and their influence on the development of Montana. Its personal appeal and intimate characters make it absorbing reading to the student of Americana. It is well worth reading.

* * *

DIABETES MELLITUS. Methods of Dietetic Management and the Use of Preparations of Insulin. From the Lilly Research Laboratories. Second Edition. Published for the Medical Profession by Eli Lilly and Company, Indianapolis, Indiana, U. S. A.

Eli Lilly and Company has prepared a condensed compilation of practical information on the treatment of diabetes, emphasizing the methods for using protamine zinc insulin. It provides for the busy practitioner a digest of information on this disease. Sample diet lists and tables enhance the value of this welcome addition to the general practitioner's library.

* * *

SEROLOGY IN SYPHILIS CONTROL. Principles of Sensitivity and Specificity. With an Appendix for Health Officers and Industrial Physicians. By Reuben L. Kahn, M.S., D.Sc., Director of Clinical Laboratories and of Serologic Consultation Service, University of Michigan Hospital; Assistant Professor of Bacteriology and Serology, University of Michigan Medical School; Major, Sanitary Corps Reserve; U. S. Army; Special Consultant, U. S. Public Health Service. Baltimore: The Williams and Wilkins Company, 1942. Price: $3.00.

The perfector of the Kahn test for syphilis, a professor at the University of Michigan, discusses here the considerations which would enable the physician to best utilize the tests in the diagnosis and treatment of syphilis and control of the disease. Two appendices, one for public health officers and one for industrial physicians, make the volume of extreme interest to those specialists. The typography is good and the material is complete. It is especially recommended to the syphilologist, the health officer, and the industrial physician.

* * *

CARCINOMA AND OTHER MALIGNANT LESIONS OF THE STOMACH. By Waltman Walters, B.S., M.D., M.S. in Surgery, D.Sc., F.A.C.S., Surgeon, Mayo Clinic; Howard K. Gray, B.S., M.D., M.S. in Surgery, F.A.C.S., Surgeon, Mayo Clinic; James T. Priestley, B.A., M.D., M.S. in Experimental Surgery, Ph.D., in Surgery, F.A.C.S., Surgeon, Mayo Clinic; and Associates in the Mayo Clinic and Mayo Foundation, Rochester, Minn. Philadelphia and London: W. B. Saunders Company, 1942. Price: $8.50.

The authors together with many associates from the Mayo Clinic have accumulated and evaluated their experience in following their concentration of efforts in this field of surgery. This analysis of information recorded in ten thousand cases tends to stimulate the interest in the early diagnosis of this malignant condition. It is unusually complete. It is recommended particularly to every surgeon, and is of distinct interest to internists and roentgenologists.

MANUAL OF STANDARD PRACTICE OF PLASTIC AND MAXILLOFACIAL SURGERY. Prepared and Edited by the Subcommittee on Plastic and Maxillofacial Surgery of the Committee on Surgery of the Division of Medical Sciences of the National Research Council, and Representatives of the Medical Department, U. S. Army. Robert H. Ivy, Chairman; John Staige David, P. C. Lowery, Joseph D. Eby, Ferris Smith, Brig. Gen. Leigh C. Fairbank, Medical Department, U. S. Army, Lt. Col. Roy A. Stout, Dental Corps, U. S. Army. With Contributions by John Scudder, Frederick P. Haugen. Philadelphia and London: W. B. Saunders Company, 1942. Price: $5.00.

This is the first of six volumes dealing with subjects which are frequently important to the care of the armed forces. "Expansion of the medical establishment of the Army is entirely dependent on entry into the service of individuals from civil life. * * * The military situation imposes certain restricting factors which render impracticable some procedures that would be considered ideal in civil life. The goal of furnishing the best possible treatment to all individuals is the same in the Army as in civil life, but the means to attain that goal may differ materially." The illustrations clarify the technical procedures. The arrangement of material is splendid and the typography is excellent. It is recommended for all surgeons in the armed forces.

* * *

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION. Edited by Richard M. Hewitt, B.A., M.A., M.D.,; A. B. Nevling, M.D.; John R. Miner, B.A., Sc.D.; James R. Eckman, A.B.; and M. Katharine Smith, B.A. Volume XXXIII—1941. Philadelphia and London: W. B. Saunders Company, 1942. Price: $11.50.

This is the 1941 edition of material which is of particular interest to the general practitioner and the diagnostician and the general surgeon. It is assembled from writings of the staff of the Clinic and Foundation. There are sixty-four complete reprints, eighty-six abridged papers and sixty-seven abstracts. The general quality of material cannot be questioned and it is voluminous. "Papers for the section on 'Aviation Medicine' were chosen from any source available in the institutions represented and are printed in full. The present widespread interest in aviation and its problems and the need for information on this subject prompted the inclusion of this section in this volume." The volume is recommended as an encyclopedic review of the literature of 1941. The typography is excellent.

* * *

PATHOLOGY OF THE ORAL CAVITY. By Lester Richard Cahn, D.D.S., Associate Professor of Dentistry (Oral Pathology), Columbia University; Fellow of the American Association for the Advancement of Science; Fellow of the New York Academy of Dentistry; Associate Fellow of the New York Academy of Medicine. A William Wood Book. Baltimore: The Williams and Wilkins Company, 1941. Price: $5.50.

A pathology which concentrates on clinical application is of interest to most doctors of medicine and doctors of dentistry. No attempt to deal with the rarer conditions is made except where they are still common enough to be always suspected. It is authoritative, excellently written, and splendidly illustrated. The typography is excellent. It is recommended to all physicians who are interested in diseases of the mouth.

HEALTH EDUCATION OF THE PUBLIC. By W. W. Bauer, B.S., M.D., Director, Bureau of Health Education, American Medical Association; Associate Editor of Hygeia, The Health Magazine; and Thomas G. Hull, Ph.D., Director, Scientific Exhibit, American Medical Association. Second Edition, Revised. Philadelphia and London: W. B. Saunders Company, 1942. Price: $2.75.

This is the second edition of the volume originally published in 1937. Its use should enable the physician to impart to the layman specialized knowledge in a manner which the layman may easily understand and therefore cooperate with his advisor. It includes every means of imparting information to the public from exhibits to personal correspondence. Every physician should use this volume as a guide to more efficient instruction of his patients.

* * *

BLOOD GROUPING TECHNIC. A Manual for Clinicians, Serologists, Anthropologists, and Students of Legal and Military Medicine. By Fritz Schiff, M.D., Late Chief of the Department of Bacteriology, Beth Israel Hospital, New York, N. Y.; William C. Boyd, Ph.D., Associate Professor of Biochemistry, Boston University School of Medicine; Associate Member, Evans Memorial, Massachusetts Memorial Hospitals, Boston; with a foreword by Karl Landsteiner, Rockefeller Institute for Medical Research. New York: Interscience Publishers, Inc., 1942. Price: $5.00.

This posthumous work of Dr. Schiff in collaboration with W. C. Boyd, gives clear and concise directions for carrying out blood grouping tests in all its aspects. The theory as well as the practical aspects of blood grouping are presented. The material is quite well organized and the typography is good. The material is authoritative and it is recommended particularly to the pathologist and other interested groups of physicians.

* * *

THE KENNY METHOD OF TREATMENT FOR INFANTILE PARALYSIS. By Wallace H. Cole, M.D., Professor of Surgery and Director of Division of Orthopedic Surgery, University of Minnesota; John F. Pohl, M.D., Clinical Instructor of Orthopedic Surgery, University of Minnesota, Director of Infantile Paralysis Clinic, Minneapolis General Hospital; Miland E. Knapp, M.D., Clinical Assistant Professor of Radiology and Physical Therapy and Director of Training Courses in Kenny Technique, University of Minnesota. Prepared under the auspices of its Committee on Education and distributed by The National Foundation for Infantile Paralysis, Inc.

The pamphlet is an exposition of the Kenny Method prepared for distribution to the physicians of the country. While only time may prove the complete field of usefulness for the Kenny Method the excellent results achieved in many cases by this method warrant this book's general distribution and study.

* * *

THE MANAGEMENT OF FRACTURES, DISLOCATIONS, AND SPRAINS. By John Albert Key, B.S., M.D., St. Louis, Mo., Clinical Professor of Orthopedic Surgery, Washington University School of Medicine; Associate Surgeon, Barnes, Children's and Jewish Hospitals; and H. Earle Conwell, M.D., F.A.C.S., Birmingham, Ala., Orthopedic Surgeon to the Tennessee Coal, Iron and Railroad Company and the Orthodepdic and Traumatic Services of the Employes' Hospital and to the American Cast Iron Pipe Company; Chairman of the Committee on Fractures and Traumatic Surgery of the American Academy of Orthopedic Surgeons, Member of the Fracture Committee of the American College of Surgeons. Associate Surgical Director of the Crippled Children's Hospital, Attending Orthopedic Surgeon to St. Vincent's Hospital, South Highlands Hospital, Hillman Hospital, Children's Hospital, Baptist Hospitals and Jefferson Hospital, Birmingham, Ala. Third Edition. St. Louis: The C. V. Mosby Company, 1942. Price: $12.50.

This is the third edition of this standard text first published in 1934. Recent advances in the treatment of fractures of the spine, humerous,

hip and foot as well as the newer handling of compound fractures have made it advisable to revise this book. Many other provisions have been made to bring up to date this exceptional volume. The practical aspect of this book adds to its outstanding value. The typography is excellent and the illustrations are particularly well selected and excellently reproduced. It is recommended to every general practitioner.

* * *

THEY DO MEET. Cross-Trails of American Physician and Chinese People. By Bertha L. Selmon, M.D. New York. Froben Press, 1942. Price: $2.50.

Two intrepid and sincere medical missionaries faced great hardship in pioneering modern medical care in the interior of China in 1903. Dr. Bertha Selmon tells about the experiences of herself and husband during the many years spent in this noble work. Unfortunately it is necessary for the reader to pick out morsels of thrilling soul-stirring experiences from a maze of unnecessary minutiæ. One is well repaid for this labor by the exceptional passages of pure drama.

* * *

A PAMPHLET OF INSTRUCTIONS FOR THE DIABETIC PATIENT. By Wm. M. LeFevre, A.B., M.D., F.A.C.P., Chief Department of Medicine Mercy Hospital, Consultant in Medicine Hackley Hospital, Consultant in Medicine, Muskegon County Tuberculosis Sanitarium, Muskegon, Michigan. Second Edition. Muskegon, Michigan: Dana Printing Company, 1942. Price: $ .50.

The author presents, in a pamphlet, information for the diabetic patient in the same manner in which the patient has been instructed in his office. The material is presented in simple concise form and is suitable for distribution to the diabetic patient.

CLASSIFIED ADVERTISING

WANTED—Physician to take over general practice at 3519 Fenton Road, Flint, Michigan. Send inquiries to Box 26, c/o Michigan State Medical Society, 2020 Olds Tower, Lansing, Michigan.

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Under the traditional Mead Policy, we reaffirm the fundamental principle that "Babies supervised by physicians are better babies." We continue to be voluntarily committed to the same side of this important medical economic question —as you.

INFLUENCE OF "SODIUM AMYTAL" ON INTELLIGENCE

During air raids on London various sedatives were tried on anxious patients, not only therapeutically, but prophylactically to reduce apprehension and induce a state of relative mental calm. In order to determine the degree of mental impairment and the capacity to react reasonably to an emergency, Slater et al. (Lancet, 1:676, June 6, 1942) measured the effect of "Sodium Amytal" (Sodium Iso-amyl Ethyl Barbiturate, Lilly) by means of standard intelligence tests which were performed on nearly 400 cases. It was concluded that doses of 3 grains or less did not impair the functioning of the patients' intelligence to any important extent. The drug must be prescribed, nevertheless, with individual susceptibilities and requirements in mind. Doses of 1 grain to 3 grains were most generally useful.

✶ HALF A CENTURY AGO ✶

ONE YEAR'S WORK IN LAPAROTOMY

J. H. CARSTENS, M.D., Detroit, Michigan

A year ago, I had the pleasure of giving you my results of four months' work in laparotomy, and it seems proper that I should finish the work today, and let you know what I did in that line for the balance of the year 1891.

It seems to be a fad to report a year's work in laparotomy, and this has been criticized; but I can see no valid objection to such reports, as the very growth of laparotomy is due to a careful record and report of cases, and these show a steady improvement in technique and a most wonderful diminution in the death rate. The result is, more operations. Cases formerly allowed to die without an effort (except opium) are now operated on, and ninety per cent, more or less, are restored to health. When the mortality was fifty or even more per cent, yes, when only twenty to thirty per cent, the general practitioner hesitated to consent to any operative interference; but now, when we can show less than ten per cent, yes, in some classes of cases, only two or three per cent, the general practitioner becomes our leading ally, and educates the public to submit to operations. The public, hearing so much about bold successful operations, and seeing the results of brilliant surgery in their friends and relatives, has brought about a different idea in the minds of people. It is seldom that anyone refuses to submit to an operation today; yes, people even request an operation, when the physician thinks that the symptoms hardly warrant one.

The work of the innovators, that is, those who are the pioneers in modern laparotomy, has been beset with difficulties. They have been assailed by the fossils in the profession, as the castrators of females, the unsexers of women, as bold, bad men, etc. But by constant work, careful observation, honest reports of all results, good, bad, and indifferent; they have found the cause of death in many cases, and how to prevent it; they have adopted and perfected modern antiseptic surgery to the highest state, and thus have gradually improved and simplified the different operations.

This includes all cases, except one of puerperal fever, which hardly belongs in this list.

In short, to recapitulate:

	No. Cases	Recovered
Appendicitis	1	1
Herniotomies	2	2
Abdominal hysterectomies	2	2
Vaginal hysterectomies	3	3
Extra uterine pregnancies	2	2
Pus tubes	16	15
Ovaritis and salpingitis	15	15
Ovarian tumors	4	3
Miscellaneous	8	7
Total	53	49

This is a fraction over 7 per cent, including the most unpromising cases. As I said last year, these operations were not made for a record, but every case was operated upon which seemed to offer hope, and every patient was given the benefit of an operation, if it was indicated. Some of the most hopeless cases recovered and now enjoy good health.

APPENDICITIS

No.	Date of Operation		Age	No. Children	Operation	Result	Remarks
1.	Dec. 22	Miss G	15	None	Rem. Vermif. App.	Recovery	
					HERNIOTOMY		
2.	Feb. 4	Mrs. H	39	None	Radical cure	Recovery	Strangulated 48 hours
3.	July 11	Mrs. H.	40	None	Hernia	Recovery	Strangulated 3 days
					ABDOMINAL HYSTERECTOMY		
4.	Oct. 16	Mrs. R	63	4	Myofibroma	Recovery	Died 3 mos. later, dropsy
5.	Oct. 31	Mrs. G.	33	5	Myofibroma	Recovery	

(Continued on page 822)

The Navy OF TOMORROW IS IN THE *Making* TODAY

WHEN sailormen come bigger, huskier, more battle-worthy, one likely reason for the improvement will be the kind of rations with which they started life.

Babies fed on Baker's Modified Milk receive seven important *extra food values*—dietary essentials that doctors and their aides in the nutrition field today credit with building better men.

Baker's is rich in essential protein (40% more than breast milk)—plus complementary gelatin, an adjusted fat, two added sugars, extra vitamins and iron . . . all in highly tolerable form, for infants from birth through bottle feeding.

Are you building better men with Baker's, doctor? We'll send complete information on request.

A powder and liquid modified milk product especially prepared for infant feeding. Made from tuberculin-tested cows' milk in which most of the fat has been replaced by animal, vegetable and cod liver oils, together with lactose, dextrose, gelatin, vitamin B complex (wheat germ extract, fortified with thiamin), and iron ammonium citrate, U.S.P. Not less than 400 units of vitamin D per quart. Four times as much iron as in cows' milk.

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CLEVELAND, OHIO
West Coast Office: 1250 Sansome Street, San Francisco

ONE YEAR'S WORK IN LAPAROTOMY

(Continued from page 820)

				VAGINAL HYSTERECTOMY			
6.	Feb. 27	Mrs. L.	58	4	Cancer	Recovery	No return so far
7.	May 30	Mrs. M	36	5	Cancer	Died	Died in 24 hours, shock
8.	May 21	Mrs. D.	42		Prolapse	Recovery	Cured insanity and epileptic fits
				EXTRA-UTERINE PREGNANCY			
9.	Feb. 6	Mrs. P.	30	2	Remnants of tubal	Recovery	
10.	June 15	Mrs. C.	36	None	Remnants and placenta	Recovery	
				PYOSALPINGITIS			
11.	Jan. 15	Mrs. M.	25	None	Gonorr. pus tube	Recovery	
12.	Feb. 7	Mrs. R	40	5	Pus tube	Recovery	Also sarcoma
13.	Feb. 10	Mrs. W.	21	None	Pus tube	Recovery	Fistula still
14.	Feb. 12	Mrs. L.	25	None	Pus tube	Recovery	
15.	April 2	Mrs. V.	30	2	Pus tube	Died	In last year's report
16.	April 19	Mrs. D	27	1	Pus tube	Recovery	
17.	July 20	Mrs. C.	28	Sterile	Pus tube	Recovery	
18.	Aug. 12	Mrs. S.	35	3	Pus tube	Recovery	Tubercular
19.	Sept. 15	Mrs. D	30	None	Pus tube	Recovery	
20.	Sept. 14	Mrs. G.	21	1	Tube	Recovery	Only right tube removed
21.	Sept. 26	Mrs. R.	33	4	Pus tube	Recovery	
22.	Sept. 23	Mrs. A.	34	5	Pus tubes	Recovery	
23.	Sept. 28	Mrs. P.	33	4	Pus tubes	Recovery	Also cyst br. lig.
24.	Oct. 13	Mrs. U.	22		Pus tubes	Recovery	
25.	Oct. 28	Mrs. M.	30	2	Pus tubes	Recovery	
26.	Oct. 31	Mrs. E.	29	None	Pus tubes	Recovery	
				OVARITIS AND SALPINGITIS			
27.	Mar. 9	Mrs. H.	28	2	Ovaritis and salp.	Recovery	
28.	April 18	Mrs. P.	40	5	Ovaritis and salp.	Recovery	
29.	May 21	Mrs. A.	36	4	Ovaritis and salp.	Recovery	
30.	Sept. 10	Mrs. B.	45	1	Ovaritis and salp.	Recovery	
31.	Sept. 12	Mrs. W	26	2	Ovaritis and salp.	Recovery	
32.	Oct. 20	Mrs. C.	28	2	Ovaritis and salp.	Recovery	
33.	Nov. 2	Mrs. G.	30	2	Ovaritis and salp.	Recovery	
34.	Nov. 4	Mrs. B.	22	None	Ovaritis and salp.	Recovery	
35.	June 30	Mrs. H.	27	None	Ovaritis and salp.	Recovery	Only 1 removed
36.	July 3	Miss C.	28	None	Ovaritis and salp.	Recovery	
37.	Oct. 22	Miss M	23	None	Ovaritis and salp.	Recovery	
38.	Oct. 22	Miss B.	27	None	Ovaritis and salp.	Recovery	
39.	Nov. 25	Miss E.	45	None	Ovaritis and salp.	Recovery	
40.	Sept. 24	Mrs. E.	23	None	One ovary	Recovery	
41.	April 2	Mrs. A.	30	1	One ovary	Recovery	
				OVARIAN TUMORS			
42.	Jan. 8	Mrs. K.		None	One ovary	Recovery	
43.	June 2	Mrs. M.	30	Sterile	One ovary	Recovery	
44.	Oct. 7	Mrs. S.	65	2	One ovary	Died	Shock 24 hours, extensive adhesions
45.	Dec. 5	Mrs. F.	54	5	One ovary	Recovery	
				MISCELLANEOUS			
46.	Mar. 19	Mrs. F.	35	1	Fistula fol. ovary	Recovery	Cured
47.	Feb. 4	Miss C.	33	None	Exploratory	Recovery	
48.	Mar. 31	Miss E.	29	None	Adenoma	Recovery	
49.	April10	Mrs. W.	46	3	Sarcoma	Died	Shock, 36 hours
50.	Nov. 25	Miss B.	36	None	Ventro-fixation	Recovery	
51.	Nov. 3	Mrs. N.	46	5	Dermoid	Recovery	
52.	Dec. 10	Mrs. B.	46	4	Papilloma	Recovery	Not removed; since died
53.	Dec. 10	Mrs. C.	46	5	Papilloma	Recovery	Not removed; since died

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A NEW APPROACH TO THE TREATMENT OF SNORING

On the basis of the theory that the true functional snoring is caused by the vibration of the soft palate, uvula and posterior pillars, and that the sound produced is related to the natural periodic vibrations of the tissue involved, it is suggested that the "fluttering" factors be modified by producing a controlled fibrosis in the vibrating soft tissues through the injection of a sclerosing solution, such as sylnasol (a 5% solution of the sodium salts of certain of the fatty acids of the oil extracted from a seed of the psyllum group).—JEROME F. STRAUS, M.D., Arch. of Otolaryng., Sept., 1942.

War Bulletins

REPORT OF MEDICAL RECRUITING BOARD

The following communication regarding change in policy regarding appointment in the Medical Corps, AUS, was received August 29, 1942, by the Medical Recruiting Board, and takes immediate effect:

"War Department, Office of The Surgeon General, Washington, D. C.
August 22, 1942. .

"The current military program provides for a definite number of position vacancies in the different grades. The number of such positions must necessarily determine the promotion of officers already on duty, and in addition, *the appointment of new officers from civilian life.* Such appointments are limited to qualified physicians required to fill the position vacancies for which no equally well qualified medical officers are available. Such positions calling for an increase in grade should be filled by promotion of those already in the service, in so far as possible, and *not by new appointments.*

"If this policy is not followed, it would definitely penalize a large number of well qualified Lieutenants and Captains already on duty by blocking their promotions which have been earned by hard work. In view of these facts, it has been deemed necessary to raise the standards of training and experience for appointment in grades above that of First Lieutenant.

"With this in view, The Surgeon General has announced the following policy which will govern action to be taken on all applications hereafter:

"All appointments will be recommended in the grade of First Lieutenant with the following exceptions:

"CAPTAIN. 1. *Eligible* applicants between the ages of 37 and 45, will be considered for appointment in the grade of Captain by reason of their age and general unclassified medical training and experience.

"2. Below the age of 37 and *above* the age of 32, *consideration* for appointment in the grade of Captain will be given to applicants who meet *all* of the following minimum requirements:

(a) Graduation from an approved medical school.
(b) Internship of not less than one year, preferably of the rotating type.
(c) Special training consisting of 3 years' residency in a recognized specialty.
(d) An additional period of not less than 2 years of study and/or practice limited to the specialty.

"3. Eligible applicants who previously held commissions in the grade of Captain in the Medical Corps (Regular Army, National Guard of the United States, or Officers Reserve Corps) *may be considered* for appointment in that grade provided they have not passed the age of 45 years.

"MAJOR. 1. Eligible applicants between the ages of 37 and 55 *may be considered* for appointment under the following conditions:

(a) Graduation from an approved school.
(b) Internship of not less than one year, preferably of the rotating type.
(c) Special training consisting of 3 years' residency in a recognized specialty.
(d) An additional period of not less than 7 years of study and/or practice limited to the specialty.
(e) The existence of appropriate position vacancies.
(f) Additional training of a special nature of value to the military service, in lieu of the above.

"2. Applicants previously commissioned as Majors in the Medical Corps (regular Army, National Guard of the United States, or Officers Reserve Corps) whose training and experience qualify them for appropriate assignments may be *considered* for appointment in the grade of Major provided they have not passed the age of 55.

"Much misunderstanding has arisen concerning recognition by Specialty Boards and membership in Specialty groups. It will be noted that mention is not made of these in preceding paragraphs. This is due to the variation in requirements of the various boards and organizations. Membership and recognition are definite factors in determining the professional background of the individual, but *are not* the deciding factor as so many physicians have been led to believe.

"The action of the Grading Board established by the Surgeon General in his office, is final in tendering initial appointments. Proper consideration must be given to such factors as age, position vacancies, the functions of command and original assignments. All questionable and essential grades are decided by this Board. Due to the lack of time, no reconsideration can be given.

(Continued on Page 826)

(Continued from Page 824)

"There are in the age group 24-45, more than a sufficient number of eligible, qualified physicians to meet the Medical Department's requirements. It is upon this age group that the Congress has imposed a definite obligation of military service through the medium of the Selective Service Act. The physicians in this group are the ones needed *now* for active duty. The requirements are immediate and imperative. Applicants beyond 45 years may be considered for appointment only if they possess special qualifications for assignment to positions appropriate to the grade of Major."

The above quoted letter from the Office of The Surgeon General was forwarded to the Medical Officers Recruiting Board of Michigan by the Headquarters, Sixth Service Command, Chicago, Illinois, with definite orders that "applications for commissions in grades higher than that of Captain, Medical Corps, AUS, will be forwarded to the Surgeon General for consideration only when it is clearly indicated that the applicant fulfills all the training and experience requirements for the higher grade as outlined in the letter referred to from the Office of the Surgeon General."

In view of the foregoing, it will be useless for any physician to apply for a commission above the grade of First Lieutenant, unless he clearly has the qualifications set forth in the above quoted letter from the Office of The Surgeon General. This Recruiting Board is definitely under orders not to forward any application to the Surgeon General of any applicant who does not meet with the above requirements, nor will it do any individual any good to send his application direct to the Surgeon General as such applications are referred back to this Board for action.

JOHN G. SLEVIN
Lieut. Colonel, M.C.
Surgeon of the Board.

August 31, 1942

MULTIPLE MESSAGE

The Office of Civilian Defense advises its regional medical officers that Lieutenant General Brehon B. Somervell, Chief of Services of Supply, has ordered all plants owned by the War Department as well as civilian plants engaged in production of war material, to plan with local chiefs of the Civilian Defense Emergency Medical Service for the use of available emergency medical facilities.

General Somervell also ordered that plant protection inspectors make sure that plans have been formulated for this coöperation.

The Navy also is sending out, with its official approval, OCD recommendations regarding coordinated plans by industrial plants to use the protection facilities of the OCD emergency medical service in time of emergency.

Industrial plants are expected to provide medical services and first-aid equipment within the plant, but in the event of enemy action, plant physicians, nurses and first-aid detachments may be unable to care for all the seriously injured.

It is considered essential, therefore, that protection of personnel in the plant be coördinated with the local emergency medical service, the OCD advised, so that plant facilities may be supplemented by those of the OCD organization in case of need.

Assistance which may be extended by the Emergency Medical Service to industrial plants includes: (1) Services of ambulances and emergency medical field units when needed; (2) Available beds at one or more hospitals to which the severe casualties may be transported; (3) Establishment of a casualty station within a short distance of the plant.

Local chiefs of emergency medical service have been instructed to advise employers concerning adequate emergency medical protection, including location of casualty stations and medical supplies within reach of the plant and installation of direct telephone lines between important locations and the civilian defense control center in order that emergency medical service may be secured and severe casualties evacuated to hospitals with a minimum of delay.

The emergency medical service in each community operates under a chief who is designated by the local defense council and is responsible to the local commander of the Citizens Defense Corps. It is an integral part of the entire defense setup and operates under orders of the commander through the local control center.

The basic operating unit of the Emergency Medical Service is a "field team" composed of a doctor, a nurse, and an orderly or nurses' aide. Each team is equipped with portable medical

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equipment adequate for operation of one temporary first-aid post. Either two or four such teams make up a "squad" and two or more squads make up an emergency medical field unit.

In case of emergency, a squad will be dispatched from a hospital to a casualty station on orders from the control center. Casualty stations are permanent installations located at strategic points throughout the local defense area. They are stocked with reserve medical supplies and equipped with cots, blankets, stretchers and heating facilities.

In addition to the facilities of the emergency medical service itself, coördination of the industrial plants medical program with that of the citizens defense corps assures the planned assistance of other civilian defense units which work with the medical service. These include rescue squads, stretcher teams, decontamination squads and the emergency food and housing unit.

BLOOD AND PLASMA FOR CIVILIAN CASUALTIES

Eighty-eight hospitals in vulnerable areas had received grants up to August 1 to aid them in the establishment of blood and plasma banks under the program of the Medical Division of the Office of Civilian Defense and the U. S. Public Health Service to build up reserves of plasma for treatment of civilian casualties in the event of enemy attack.

These funds were used in some cases to provide additional equipment for existing blood and plasma banks in order to enable them to meet the requirements of the Office of Civilian Defense program, to supplement local funds for the establishment of new banks and to provide technical assistance during the time the bank is building up the Civilian Defense requirements for plasma reserves.

The original allocation of funds permitted assistance only to states within 300 miles of each seacoast. As of July 1, however, when new funds were appropriated, this geographical limitation was removed to permit a limited number of hospitals in inland target areas to participate. Since that time grants have been made to hospitals in Cleveland, Chicago and other communities along the Great Lakes.

Revised regulations issued July 1 contained certain new conditions for obtaining the grants. Because it is desired to avoid any possible interference with the Red Cross program for procurement of blood for the Army, the Navy, and the Office of Civilian Defense, the regulations specify that a hospital within 75 miles of a Red Cross bleeding center shall not conduct any competitive campaigns for donors. In such hospitals, six months is allowed for building up the civilian defense plasma reserve instead of three months, which is the general requirement. This reserve must amount to one unit of plasma per bed.

The plasma may be used for the current needs of the hospitals in the treatment of its regular patients, provided that the plasma reserve shall not be allowed to fall below the stated minimum. If the reserve is depleted because of large numbers of casualties, however, a reasonable time is allowed for replenishment of the bank to the required amount, and additional financial aid will be provided. This will also be done for approved hospitals which have not received grants but furnish other hospitals with plasma prepared locally for the treatment of casualties resulting from enemy action.

COLONEL SEELEY TO MILITARY DUTY

The Directing Board of the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians, has formally expressed its appreciation of the services rendered by Colonel Sam F. Seeley, who has been transferred to military duty. Following is the text of the resolution adopted:

"The transfer of Lieutenant Colonel Sam F. Seeley from his connection with the Procurement and Assignment Service to active military duty causes a great loss. Colonel Seeley who has acted as Executive Officer since the beginning of this Service has been transferred to military duty, which is in keeping with the policy recently adopted by the War Department. His training and experience with the Medical Corps of the Army in his professional capacity amply justifies such a step.

"The Directing Board of the Procurement and Assignment Service wishes to take this opportunity of expressing to the Surgeon General of the United States Army its very deep appreciation for the valuable service which Colonel Seeley has

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rendered during its period of organization and functions.

"The Directing Board expresses to Colonel Seeley its deep appreciation for the great sacrifice which he has made in dislocating himself from actual military duty to serve with us in an executive capacity. He has been most unselfish, and has given unstintingly of his time, energy, and patience in helping to solve many of the problems connected with the functioning of the Procurement and Assignment Service. He has not only labored faithfully at our office in Washington, but he has traveled over the United States contacting many of his professional confrères and explaining to them the purpose for which the Procurement and Assignment Service was organized. His services have been most valuable and have helped to take us a long way in accomplishing the objectives for which it was created.

"The Directing Board expresses to Colonel Seeley its gratitude and thanks for his unselfish devotion to the organization of the Procurement and Assignment Service and wishes for him the greatest success in his new assignment.

"FRANK H. LAHEY, M.D., *Chairman*
HARVEY B. STONE, M.D.
HAROLD S. DIEHL, M.D.
JAMES E. PAULLIN, M.D.
C. WILLARD CAMALIER, D.D.S."

CONSERVATION OF DEALERS' STOCKS OF MEDICAL AND SURGICAL SUPPLIES

The medical profession and the hospitals of the nation will shortly be obliged to depend upon dealers' stocks of medical and hospital supplies if they are to maintain their present level of efficiency. The continued shortage of raw materials makes it increasingly evident that even the armed forces may have difficulty in securing their requirements. Stocks on the shelves of the dealers of this nation constitute the only reserve of medical and hospital equipment which may be available in the near future to meet civilian needs. The hoarding and dead storage of equipment and supplies for a possible emergency should, therefore, be discouraged. Any unexpected emergency could be met by our present civilian medical and hospital resources; continued disaster could only be met by the utilization of military stores which would be made available if there were urgent need.

Any surplus or obsolete equipment now in the possession of physicians and hospitals ought not to be dispersed at this time, because of the difficulty of replacement and the possibility that it may be needed for the establishment of emergency base hospitals.

ADDITIONAL EXAMINATIONS

Because of the War Emergency the American Board of Ophthalmology announces the following additional examinations:

New York City.....December 13 to 15
Los Angeles.....January 15 and 16

At the last meeting it was decided to cancel the 1943 written examination, to include in the oral examination all of the subjects previously covered by the written examination, and to temporarily dispense with the requirement of case reports. The oral examination will probably require two or three days and will cover the following subjects:

External Diseases—Slit Lamp
Ophthalmoscopy
Histology-Pathology-Bacteriology
Ocular Motility
Refraction—Retinoscopy
Practical Surgery
Anatomy and Embryology
Perimetry
Therapeutics and Operations
Optics and Visual Physiology
Relation of the Eye to General Diseases

Formal application on the proper blanks for the December and January examinations must be filed with the Secretary not later than November first.

Please write at once for blanks to: American Board of Ophthalmology, 5830 Waterman Avenue, St. Louis, Missouri.

PHYSIOLOGIC STUDIES—DEEP SEA DIVING AND AVIATION

The individual subjected to a pressure of 4 atmospheres (100 foot depth) begins to experience symptoms of altitude anoxia—or alcoholic intoxication—impairment of neuromuscular coördination and slowness and unreliability of cerebration. The agent is atmospheric nitrogen. Helium to replace nitrogen creates an ideal atmosphere for depths of 500 feet.

Inhalation of oxygen at 1 atmosphere has been continued for 17 hours without injurious effects. Others have complained of symptoms of substernal distress. At a pressure of 3 atmospheres (75 feet) pure oxygen produces periodic waves of nausea and facial pallor. Progressive contractions of the visual fields, to transient amblyopia, has been repeatedly observed during the fourth hour of exposure. Vision is temporarily lost but a measure of consciousness remains. About an hour of restoration to normal atmosphere is required to return the fields to approximately normal.—LT. A. R. BEHNKE—*Bulletin, New York Academy of Medicine,* September, 1942.

—— Michigan Medical Service ——

FACTS OF INTEREST

Enrollment of Subscribers: 422,403 subscribers enrolled as of June 30, 1942.

Registration of Doctors: As of August 31, 1942, 3,543 doctors of medicine were registered as participating with Michigan Medical Service—a net increase of 237 participating doctors since January 1, 1942.

Payments to Doctors:

1940	$ 172,115.00
1941	790,733.30
To August 31, 1942	1,525,963.15
	$2,488,811.45

Cases Reported: To September 1, 1942, 78,152 cases of services have been reported to Michigan Medical Service.

ANNUAL MEETING

The Third Annual Meeting of the Members of the Corporation of Michigan Medical Service was held on September 22, 1942, at Grand Rapids.

In addition to the election of Directors and changes in the Articles of Incorporation, particular interest at this meeting centered around proposed revisions dealing with:

(1) Change in the income status whereby the physician determines the income classification of the patient.

PUBLIC OPINION

The *Fortune* survey, July, 1942, (p. 14) of public opinion in regard to socialized medicine resulted as follows:

Question: Do you think the federal government should or should not collect enough taxes after the war to provide medical care for everyone who needs it?

Answer:	*Should*	*Should Not*	*Don't Know*
	74.3%	21.0%	4.7%

On this proposition there is not a single dissenting majority in any income or occupational group or section of the country.

(2) Change in hospital accommodations whereby the payment applies as a credit toward the physician's total charge whenever the patient elects to occupy a private room.

(3) Increased payments from subscribers under which all subscribers are being transferred to higher monthly rates which will increase revenue by 25 per cent, thereby enabling continued full payment to physicians.

PROFESSIONAL OPINION

Responses to the August 17, 1942, letter sent to all Michigan physicians outlining the changes in the Surgical Benefit Plan, were as follows:

76%—Favorable
8%—Opposed
16%—Indefinite

(4) A modernized certificate changed in physical appearance, thus making it more concise, clear and readable.

PUBLIC HEALTH IN WARTIME

War and preparation for war enhances the possibilities of public health emergencies. Movement of populations into industrial areas prepares the ground for outbreaks of communicable diseases through crowding and improper housing. The problem of housing has been recognized, it is true, but the preparations for meeting the needs cannot keep pace with the population influx. Communities have sprung up over night, workers sleeping in cars, trailers or hastily constructed shacks. In spite of the speed with which public health authorities could move, questionable water supplies were used. In such instances, toilet and excreta disposal facilities were nonexistent.

Industrial hygiene has, during the past two years, received a greatly increased measure of attention from public health authorities. Speed up in industrial production is accompanied by short cuts and a departure from usual safety habits not necessarily by the industry, but frequently by the employe. In recent months labor-management Production Drive Committees, organized by the War Production Board, have been urged to make health conservation an integral part of the production drive through the organization of industrial hygiene and medical services in the plants and also to avail themselves of the public health and medical services in their communities.—EDWIN CAMERON, in *Delaware State Medical Journal,* August, 1942.

When depression accompanies more fundamental pathology

In many patients, depression may occur as an accompaniment of some more fundamental pathology, either organic or psychogenic. In such cases, the physician should bear in mind that, while Benzedrine Sulfate will not affect the underlying condition, its stimulatory effects may help to alleviate the concomitant depression which so often interferes with the management of the case.

Benzedrine Sulfate Tablets

Benzedrine Sulfate is primarily useful in depressions characterized by apathy and psychomotor retardation, but is contraindicated in patients manifesting anxiety, hyperexcitability, or restlessness.

The use of Benzedrine Sulfate by normals should not be permitted; it should always be administered under the careful supervision of a physician; and depressive psychopathic cases should be institutionalized.

In treating depressed patients with Benzedrine Sulfate, the physician should bear in mind that any drug which produces pleasant or euphoric effects may prove to be habit forming—especially in unstable or neurotic individuals.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

READERS' SERVICE

INFECTIONS OF THE PHARYNGO-MAXILLARY SPACE

The pharyngomaxillary space often becomes infected; the source of infection being an inflammatory disease of the mucous membrane of the pharynx, particularly of the tonsils. Most frequently the infection travels by continuity or along the lymph channels and produces, first of all, a lymphadenitis. Under circumstances not exactly known, it is possible that the affected glands which are adjacent to the internal jugular vein as well as to the superficial veins of the neck, involve the vein before actual suppuration takes place resulting in a "fulminant sepsis after angina." In contrast to that type of sepsis in the slowly progressive suppuration of the connective tissue, the lymph channels and the lymph glands called "Abscess of the Pharyngomaxillary Space." When the infection has a higher degree of virulence "phlegmon of the pharyngomaxillary space" develops, which may spread toward the mediastinum or the meninges or the floor of the mouth.

Symptomatology, prognosis and treatment of these different types of inflammation are discussed exhaustively.—HANS BRUNNER, M.D., Chicago, Illinois. (See page 841.)

SHOVELER'S FRACTURE ("SCHIPPERKRANKHEIT")

Shoveler's fracture or "Schipperkrankheit" should be of especial interest to industrial or traumatic surgeons. It is an avulsion fracture of the spinous processes of the cervico-thoracic spine occurring during the act of shoveling, pushing or pulling. It has been recognized in foreign countries for some time, especially during and since the depression years. It is frequently not recognized and the patient is said to be, or does become neurotic. Careful palpation and lateral or oblique roentgenograms are necessary. Treatment is either by early immobilization and rest or excision of the loose fragments. A case is presented of a man, aged fifty, who had been on relief for many months. Fracture occurred while attempting to throw coal to a bin fifteen feet away. Because two weeks had elapsed since the injury he was treated and relieved by excision of the loose spinous processes.—CLARENCE H. SNYDER, M.D., Grand Rapids, Michigan. (See page 847.)

THE NEEDS AND POSSIBILITIES OF RESEARCH IN MENTAL DISEASE

There has been a relative neglect of research in mental disease as compared with research in other medical conditions. Recent advances in medical knowledge suggest promising lines of approach to the problem. The research should include studies in biology, biochemistry, neurophysiology, pathology, endocrinology, morphology, psychology, etc., as these subjects may have a bearing on mental disease. Such studies should be supplemented by extensive field studies into social and environmental factors.

In order to carry on research to the degree demanded by the magnitude of the problem, there should be an institute for the study of nervous and mental diseases established in the United States Public Health Service. This institute should have extensive facilities for clinical and laboratory research, and should have an advisory council that would pass upon the merits of research projects proposed by outside agencies and persons. Government funds would be utilized to finance approved projects. By this means the best thought in the country would be mobilized and the total research effort coördinated. —LAWRENCE KOLB, M.D., Washington, D. C. (See page 849.)

EMBOLECTOMY OF THE EXTERNAL ILIAC ARTERY—CASE REPORT

The prevailing attitude of hopelessness toward the successful treatment of emboli of the extremities should be dispelled. A successful case is presented in a man of fifty-six.

In briefly reviewing the literature it is felt that the employment of heparin has made embolectomy simple and safe. Paravertebral procaine block should be attempted in most cases. Sympathetic block often makes embolectomy unnecessary and is not sufficiently time-consuming to interfere with prompt surgical treatment should the block fail. In the writers' case embolectomy of the external iliac artery was from the femoral approach using smooth common duct stone forceps to extract the embolus. The patient had auricular fibrillation and recent decompensation. When last seen in January, 1942 (nine months postoperative), he was working eight hours daily in a factory.

More surgeons in smaller communities should attempt prompt radical treatment since no special equipment is needed and time consumed in transportation to medical centers takes away the hope of cure.—By WILLIAM H. MARSHALL, M.D., F.A.C.P., and EDWIN P. VARY, M.D., M.S., F.A.C.S., Flint, Michigan. (See page 856.)

(Continued on Page 836)

S·I·M·I·L·A·C

● ***The name is never abbreviated; and the product is not like any other infant food—notwithstanding a confusing similarity of names.***

The fat of Similac has a physical and chemical composition that permits a fat retention comparable to that of breast milk fat (Holt, Tidwell & Kirk, Acta Pediatrica, Vol. XVI, 1933) . . . In Similac the proteins are rendered soluble to a point approximating the soluble proteins in human milk . . . Similac, like breast milk, has a consistently ZERO curd tension . . . The salt balance of Similac is strikingly like that of human milk (C. W. Martin, M. D., New York State Journal of Medicine, Sept. 1, 1932). *No other substitute resembles breast milk in all of these respects.*

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(Continued from Page 834)

TREATMENT OF TYPHOID FEVER WITH TYPHOID VACCINE

Following the determination of a skin reaction controlled low dosage method of using staphylococcus toxoid, typhoid vaccine was used for comparative purposes. A skin dose of 10 to 20 million typhoid bacilli seemed of value for skin sensitivity tests. In 1939 an outbreak of typhoid fever occurred in Detroit. Of the thirty-five persons exposed seven took the disease. Exposed persons who did not take the disease showed large initial twenty-four hour skin reactions (7.5 cm. in diam.). In the active disease the twenty-four-hour skin reaction was negative. Treatment consisted of increasing intracutaneous and subcutaneous doses of the vaccine every three to five days. A rapid clinical recovery occurred in eleven days. A total dose of 430 million bacilli were given, 130 million intracutaneously and 300 million subcutaneously.—KYLE E. TOWNSEND, M.D., Detroit, Michigan. (See page 859.)

MISTAKES MADE IN THE DIAGNOSIS AND ESTIMATION OF DEAFNESS

The old methods were used with instruments which were crude and inexact. The invention of audiometers is a great advance.

The mere use of an instrument of precision is no guarantee of precision of results. Many sources of error are pointed out and the manner in which these can be avoided is carefully given. Inattention to these matters will make the audiometer records quite untrustworthy. But taken with every attempt to avoid the sources of error mentioned audiometer records will be a great source of satisfaction.—D. E. STAUNTON WISHART, M.D., Toronto, Ontario, Canada (See page 861.)

SOME OBSTETRIC OPINIONS

I am a conservative, but if we are to keep the practice of medicine in the United States as it is now, there are some things we doctors must do. We must be more honestly aggressive, more of an educator of our individual patients, more cooperative with each other, and we must do the best job we can under the conditions in which we are working.

In my humble opinion there is too much individual autocracy in the practice of medicine. There is not enough give and take, not enough resiliency. In obstetrics particularly, there seems to be too many radical decisions that are based upon relatively small personal experience.—JAMES R. MCCORD, M.D., Atlanta, Georgia. (See page 866.)

TREATMENT OF PARKINSON'S DISEASE

The therapeutic effects of atropine sulphate solution and the wines of American and Bulgarian belladonna were observed in a series of thirty patients with Parkinson's disease. It was apparent that 0.5 per cent solution of ordinary atropine sulphate was as good or better than the wine of Bulgarian belladonna while the wine of American belladonna was least effective. The signs of toxicity and of improvement were similar to those previously reported in the literature. Of the two principle types of Parkinsonism, that due to encephalitis responded better to each of the three belladonna preparations. The occasional startling results reported by some investigators in the treatment of these patients with Bulgarian belladonna was not observed.—S. STEPHEN BOHN, M.D., Detroit, Michigan. (See page 871.)

From *glands and viscera* of meat animals, once waste products of packing houses, come such products as sausage casings, gold-beaters' skins, and perfume bottle caps.

COMMITTEE PERSONNEL

(Continued from Page 816)

Medical Preparedness

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